NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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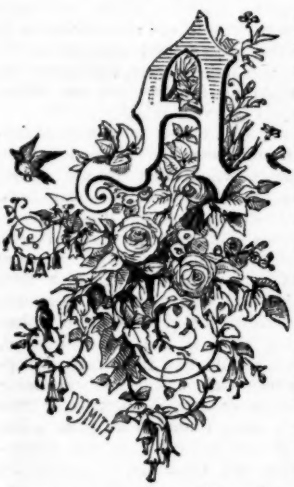
SIMON BROWN, EDITOR.

AUGUST.

O, 'tis a sight the soul to cheer,
The promise of the fruitful year,
When God abroad his bounty flings,
And answering nature laughs and sings!
He, "for the evil and the good,"
For them with hearts of gratitude,
For them who thanklessly receive,
The blessings he vouchsafed to give,
Bids from his storehouse in the skies,
"His rain descend, His sun to rise."

Bishop Mant.



AUGUST, like July, is a month of many duties. The farmer will find but little respite from his labors, for no sooner is the hay harvest secured than the grain crops—wheat, rye, barley, oats and other grains, are to be attended to. Yet no season, perhaps, is accompanied with sweeter pleasures or more solid enjoyments. Toil is sweetened by the reflection that it is amply rewarded by its results, and a zest communicated to every employment by the prospect of succeeding rest. Who is happier, indeed, than the successful farmer? With wants moderated within the limits of easy indulgence, and with tastes as simple as the beauties by which he is surrounded, there is little to annoy or perplex, or to excite to those painful and ruinous efforts in pursuit of pleasure, which are so eminently destructive of genuine happiness, and attended so often by disastrous and fatal results. He knows the Omnipotent has designed that in the "sweat of his face he shall eat bread," and that he can in no way be so happy as in the performance of those duties which "devolve upon him in his character of citizen and MAN." Surrounded by the blessings and enjoyments of a peaceful home, he can smile at the allurements the world holds out to excite the ambitious, and stir up the unholy passions of rivalry and envy in the worldly mind. Conscious that he is, to the best of his ability, filling the sphere which God has assigned as his special province of thought and action, without wishing to transgress its established limits, he does not admit to his heart a single feeling antagonist to the emotions of quiet and pious joy which it so naturally begets. Well may he exclaim with the poet:

I but ask
Of Nature that with which she will comply—
It is but in her summer sun to bask,
To mingle with the quiet of her sky,
To see her gentle face without a mask
And never gaze on it with apathy.
She was my early friend, and now shall be
My sister."

There is one thing which strikes us most favorably when contemplating the condition of the farmers of the present day, and that is the obvious improvement manifested in their mode of living, and the regard to neatness which their farms and homes exhibit. In many details, farming, as a business, has considerably advanced during the last ten years. The New England husbandman, who owns his lands, is now a gentleman—not one of the gilded butterflies of society, who call themselves such, but a gentleman in fact. By patient industry in an honorable pursuit, he has acquired the means of happiness and comfort, and enjoys an independence, a freedom from care, which even a monarch might envy, and of which no revolution of society can lawfully deprive him. In this sentiment of natural independence reposes a power more to be valued than gold or jewels,—a moral force which imparts energy to every faculty, and by elevating the intellect and the affections,

acts as a guarantee to the social and political institutions of our country.

The farmer of the present day is not satisfied with the results which rewarded the patient labor of his ancestors. He knows from experience, as well as by reading and observation, that farming is an art of almost unlimited capabilities, and that it is the part of prudence to avail himself of all the aids which science, by its numerous discoveries, has so beneficently placed within his reach. The benevolent and well directed labors of his predecessors, who have demonstrated the certainty of improvement in the art, have slowly, yet surely, wrought out encouraging results. Great problems have been solved, and satisfactory consequences produced by comparatively insignificant means. The fields and smiling uplands exhibit evidence that enlightened *mind* has directed the hand of culture in their management, and that the golden harvest has well repaid the tiller for his cash and toil. In his house there is also evidence of progress. Comfort is seen in all the appurtenances and surroundings. If we step within and scrutinize the interior arrangement and discipline there displayed, we shall find that the farmer's wife and daughters have also participated in the blessings of progress, and are emulous of performing well the part which nature and the genius of domestic life has particularly assigned them in the great work of improvement.

While we commend the spirit which wisely aims to ameliorate the condition of society by alleviating the burden of the toiler, we are not by any means in love with that sentiment of false refinement which is too frequently allowed to modify the conduct of so many of our pseudo-reforms. Innovations which promise nothing valuable, either in the present or the future, but which tend rather to weaken or divert the mind, are to be deprecated as antagonist to our prosperity and peace. A false and corrupt refinement is the bane of society and of nations. Athens, Rome, felt equally the satanic influences of this great leveller, and it is against this, more emphatically than against any other cause that is likely to assail our liberties, that we would raise a warning voice.

If we labor on moderately, but diligently, and are faithful to all the trusts reposed in us, leaving the issue to the Disposer of events, all will be well with us, here and hereafter.

Liability in Respect to Contagious Diseases.—A New York court has lately awarded $5000 damages against the Harlem Railroad Company for turning out their horses infected with farcy and glanders, in a meadow adjoining the stable of the plaintiff (Wilks) whereby his horses took the disease and many of them died.

System and Economy in Families.

There is far more depending on a well-ordered household, than a vast majority of married women would seem to believe. In looking around we see on every side how much system and economy would accomplish if properly observed. I began married life early; my husband had no other income to rely upon than the labor of his own hands. We lived in a small house, having attached to it a small garden. Providence blessed us with health. My duties multiplied by increase of years; but they were carefully laid down and punctually performed. We rose early, breakfasted, dined and supped at exact hours, as most families do. Every hour in the day had its allotted duty or arrangement, and everything was done in accordance with it. By this means a perfect system was maintained, reducing the labor of a family nearly one-half; and in this way I had ample time for reading, receiving and returning visits, out-door exercise, &c. Expenditures in every department were made carefully, and thus while we wanted for nothing which persons in moderate circumstances needed, there was an exact account kept of the amount of income and outlay, and we made it a point always to keep safely on the right side. By degrees our pecuniary means increased; capital was supplied for a more extended business on the part of my husband, and profits augmented until we have a full, and I may say an abundant share of this world's goods. My husband and I unite, however, in the conviction that this fortunate result of circumstances is mainly owing to the system and economy established in our young married career, and the smiles of Providence upon our industry and our efforts to perform our duty in every relation of life.

The great error committed by young housekeepers, is the thoughtless and unnecessary expenditure of money which they cannot afford, perhaps in imitation of extravagant neighbors. And in young husbands wasting their time in visiting play-houses, billiard-rooms, club-rooms, worthless exhibitions, parades and other places of resort, instead of remaining at home with their wives and families, enjoying domestic comforts, which will in the end be found to be more enduring and satisfying than all the rest combined. Young wives, also, should find their highest happiness in their homes—in meeting and welcoming their husbands to the spot which ought to be their mutual paradise; and, I am clear, their safest road to prosperity is in establishing and observing strictly system and economy.—*Germantown Telegraph.*

An Easy and Simple Yeast.—Take a jar or quart pitcher and mix in it flour and warm water, with a little salt, somewhat thicker than batter, and about half full. Then set the pitcher in a kettle of warm water, about the same temperature, which must be kept up by adding warm water occasionally. It must stand thus for five or six hours, and be stirred now and then, till it begins to rise. It will at last fill the pitcher, when it will be sufficient for two or three loaves of bread, by being mixed with more flour and warm water in the usual way. If you use water half of which is boiling, mixed with half quite cold, it will give you the proper degree of warmth. This bread never turns sour with age, and is very easily made.

ERADICATION OF BUSHES AND SHRUBS.

When pasture grounds become overrun with bushes and shrubs, one method sometimes adopted for cleansing the surface is to plow them in. To do this well, will require a very strong plow and a stout team. It should be a plow made for the purpose, and sufficiently strong for three pair of oxen, so that it will turn out partially decayed small stumps, and the green roots of young alders, berry bushes, &c. As many of these as possible should be covered by the furrows, where they will gradually decay and feed the living plants upon the surface above them.

Everything that has been produced by the soil, and vitalized by the principle of life, possesses the power of assisting the development and growth of plants, and when resolved into its original elements, by the action of chemical affinities, which occurs on the cessation of the vital principle, of adding also to the improvement of the soil.

There are certain constituents involved in the structure of all vegetable substances, which are, strictly speaking, of a nature at once permanent and indestructible. Thus the lime contained in certain vegetables, when those vegetables cease to live, is returned immediately to the soil. The ash, or residuum, which remains after burning, possesses, likewise, the same imperishable character, and becomes, as before, a portion or constituent of the soil, and a powerful and indispensable adjunct in the reproduction of future crops of hay and grain. Thus the bushes, whether burned or left to decay by a slower process, are by no means lost to the soil, but impart to it valuable fertilizing agents.

There are some lands, however, which cannot be subjected to the plow, and which must be reclaimed by some other process, which will clear them of the spurious vegetation which prevents a growth of grass. When such is the case, it has been found a judicious plan to cut, and either burn the crop on the soil, or remove it to some convenient situation where it can be changed, by the assistance of chemical agents, or by the natural process of putrefaction—which, in all green and succulent vegetables is soon induced—to the condition of manure. In this way the expense necessarily involved in the operation of cutting and clearing, will be partly reimbursed by the food obtained, while the actual improvement of the soil, resulting from the application of that food—and which is by no means an insignificant item in such efforts, will be obvious and enduring.

Most sheep ranges are more or less covered with rocks, rising, occasionally, into steep and abrupt acclivities, and filled with small cobble stones, or large embedded boulders. When such is the geological character of the soil, the surface must be cleansed with the scythe, as no effort to invert the sward and cover the vegetable matter beneath the furrow slice can prove otherwise than abortive. Where the bushes are cut clean, numerous new shoots will be thrown out, and if the pasture be slightly overstocked, the sheep and cattle will continually browse them and greatly retard their growth, and in many instances entirely suspend their growth. We have known lands completely reclaimed, and filled with the sweetest and most nutritious herbage, where the bushes were cut as suggested, and then the land stocked with sheep. This is probably the easiest and cheapest method of restoring rocky lands, as on such there will remain many places where the plow cannot operate successfully. In such a case, nothing but a useless and unprofitable expenditure of time and effort can possibly ensue.

By thoroughly cleansing the surface of such land, and sowing gypsum, lime, wood ashes, and other energetic mineral manures over the surface, a very decided increase of vegetable matter may be produced, and at comparatively small expense. Argillaceous, or clayey soils, it is supposed, are better able to bear repeated applications of lime, than that of a sandy texture, as, in the first place the action of the mineral tends, by its physical action, to disintegrate and loosen the tendency which all clays have to retain the humus, or decomposable matter, left after the decay of all organized substances, whether of animal or vegetable origin.

On low lands, such as bogs and marshes which have been thoroughly drained, the operation of lime may be highly beneficial, because they are filled with substances which are susceptible of decomposition which the decomposing power of the lime tends powerfully to accelerate and perfect. The effect produced by the solvent influence of the mineral on soils of this description, is far more potent, immediate and beneficial than that of any other manure. But on thin, light soils, if applied too frequently, or in excessive quantities, it will tend to impoverish them, and reduce them, after a time, to actual sterility, even though each application may, when separately contemplated in its results, appear to have a favorable effect.

A good pasture is a valuable appendage of the farm, and without which no farmer can comfortably succeed. As yet, far too little attention has been given to this important department of the farm.

HARVESTING TURNIPS.—"Old Hurricane," a correspondent of the *Country Gentleman*, who often starts up a breeze in its columns, states that one year being hurried up by frost, he "hired six day-laborers, and an extra team, to work with two of his own men and horse and cart. That day

they worked at topping Swedes and raising them, and at night he actually offered the men the roots housed for their wages, and was refused." He also states that a neighbor, who raised two acres paid enough for extra day-labor in harvesting, besides his regular hired men and team, to amount to 20 cents per bushel for the whole crop. He also says that his experience is, that, after a crop of corn is ready to garner, it will cost more than the corn will fetch in market to hire it harvested by ordinary day-laborers. This he acknowledges to be a specimen of Gentleman Farming. In contrast to which he cites the case of a neighbor who does his own work, is independent of circumstances and men, has fine buildings, good fruit, early crops; in fact, perfect order, neatness and thrift are the characteristics of that thirty-acre farm.

TOPDRESSING GRASS LANDS.

It is the practice of many farmers to topdress their grass lands with composted manure as soon as they conveniently can after getting off the hay crop. It is a good practice. The manure protects the roots a little from the rays of the sun, and the first shower washes some of its nutritious properties into the soil and about the roots of the grass, so that they are stimulated to throw out new sets of leaves, which afford a still further protection, both to plants and the manure. The surface is also sufficiently hard in summer to allow the teams to pass over it without cutting ruts, or being poached by the feet of the animals drawing the load.

We refer to this matter at this particular time in order to suggest to those who have grass lands newly laid down,—that is, that have been mowed only one or two years,—not to postpone the application of some sort of dressing, if they desire to continue cutting a remunerative crop for several years. The mistake made by most farmers is, in postponing the topdressing too long. If clover is allowed to seed, and is then cut, the roots die and there can be no further crop from them. If the clover is cut while in blossom, there will be a second crop the same year, and perhaps two crops the succeeding year, if the land is rich. Red top and herds grass will continue longer than clover, but the roots of both of these gradually die out, or yield to stronger grasses, until the whole crop is changed from the sweet and nutritious grasses just named, to the wiry "June grass," weeds, or some other plants of little value. All this comes from not topdressing in season. If this were done, even though but slightly, after the first crop is cut, and afterwards, each year, the roots of the grasses sowed would be kept in a vigorous condition, and our mowing fields would not "run out" as they do now. Under such a practice, moist, and naturally good lands would yield a ton or a ton and a half of hay per acre for eight or ten years in succession, with more certainty than they now yield two-thirds that amount.

A neglect of this important item of farm work brings a train of losses that should be avoided. In the first place, the farmer, feeling that he cannot afford to plow so often, allows the field to remain in grass for several years, when he gets but a scanty crop, not half, perhaps, what the land is capable of producing under skillful cultivation. The next expense incurred is that of plowing and preparing the soil, and the cost of seed to stock it again. These are all expensive, and if their frequency could be lessened one-half or one-third, the saving would amount to a handsome sum in a twenty years' practice.

For the New England Farmer.

SHEEP HUSBANDRY---No. 6.

One reason assigned by some farmers for not keeping sheep is the expense of fencing. We have said in a former article, that he is a poor farmer who does not keep sheep; and we always say, when we see poor, tumble down fences, that the owner is a poor farmer, and has poor land to farm; for if land is not worth fencing it certainly is not worth farming.

An ordinary fence, sufficient to turn the generality of cattle, would be all that would be required to turn, with the addition of a rail, that class of sheep which would be most profitable for a farmer in this section to keep. Mr. Charles G. Davis says in his report: "A few sheep were formerly kept in remote corners of Plymouth county, mostly known as native sheep, with long legs and narrow breasts; wool of all varieties on the same carcass except the fine grades, with straight hair protruding from the more substantial level of the woolly matting. These sheep could run like deer, and jump or climb a four-rail fence. The majority of our farmers had been brought up with the idea that stone walls and common fences would not restrain sheep; and they judged rightly of such as were known to them. We have now among us many flocks, small in number, which are easily confined by a good wall or a three-foot fence, close enough to prevent their crawling through. Sheep raised for mutton, as in England—and it is for mutton principally that they must in a series of years be raised here—are quiet and lazy." A good four feet and a half fence would turn the heavy, long wooled sheep without a rail. But in this section of country, where stone is so abundant, we should be in favor of a *deep wall* under the surface to drain off the water and out of the way of the frost, and six feet high above the surface, so that during those cold and driving storms good shelter would be afforded the cattle and sheep, and such shelter in the spring would be of incalculable value to the raiser of lambs; and which the farmer would fully appreciate after seeing the beneficial effects upon his stock for a few seasons. What an advantage it would be in early spring to have the southerly side of such a fence, with a sweet, fresh grass for the ewes and lambs to crop while enjoying the genial rays of the sun, shielded from the bleak,

cold, northerly winds; and in summer the northerly side would afford excellent shade from the scorching rays of the sun!

When we have seen the sheep lying panting under some low bush or wall, we have wondered that it did not occur to our farmers who have some old boards and slabs lying round, to make a cheap shed for their cattle. What a protection it would be during showers, storms and winds! and the amount of manure found there would be sufficient proof that it was appreciated by those it protected.

But they say it will not pay. If it will not pay to remove a stone from the surface of the ground, it certainly will not pay to let it remain there. What profit did the farmer ever realize from that square yard of land occupied by a stone? A spire of grass, a blade of grain or corn never waved there. But the stone once removed the soil becomes productive forever. Whether the stone is used to build a fence or make a drain, it ceases to be a barrier to the cultivation of the soil. The question of paying being simply a question of time, improvements on land ought not to be calculated like ordinary outlays which endure but for a season. The improvement of land by removing stone continues forever.

We have, in preceding articles, referred to the large amount of wool which is raised in Great Britain; but it is not for wool alone that sheep are kept in that country. Mutton constitutes a large item in the domestic economy. It is frequently styled a beef eating country, but a larger amount of mutton is consumed there every year than of beef. Mutton is cheaper and more nutritious than beef, and far more nutritious and much more healthy than pork, and can be produced at a less cost than either.

The experiments of physiologists prove that mutton is not only more nutritious, but digests more easily, and more readily assimilates to the system than any other meat we are in the habit of consuming, and is more economical to the buyer at the usual prices, for careful experiments show that while beef in boiling loses 26½ per cent., mutton loses but 21 per cent.; beef loses by roasting 32 per cent., mutton only 24 per cent.

The committee's report on sheep husbandry for 1860 from which we quote, says:

"These facts have not only been long known and demonstrated by English and French philosophers, but have been actually and practically understood by the people, and certainly are worthy the consideration of our own countrymen.

"The taste for and consumption of mutton will increase according to the quantity and quality of the production. Mutton can be raised much cheaper than beef or pork. Mr. Mechi says, 'he is convinced that beef must sell twenty per cent. higher to make them pay alike.' When our farmers find the demand for mutton increasing according to their exertions to make it good, that they can raise it a quarter cheaper than they can beef, and that it is better husbandry to get a hundred pounds of mutton from one sheep than from two, and the quality of that will be a ruling condition, then we shall have our State farmers cultivating the best breeds of English mutton sheep to the comfort, profit and health of the whole community as well as themselves."

And if farmers wish to increase the demand, and to cultivate a taste for mutton, let them produce the kind described, and they will find their efforts appreciated by being remunerated.

We are satisfied that the supply of good mutton is not near equal to the demand in this vicinity; and the same may be said of the larger towns in the State as well as the villages. But we do not blame the people for having no taste for a large amount of the mutton that has been brought to market. We are pleased, however, to notice a marked improvement in the mutton offered for sale, yet there is room for still further improvement, and the public are ready to reward every attempt to bring to market a first class article.

In order to demonstrate that the raising of mutton is more profitable than raising stock or producing beef, let us suppose a heifer calf and six lambs are dropped at the same time, the expense of keeping six sheep being generally admitted to be equal to one cow; the cost, however, of keeping the calf the first six months will be more than the cost of keeping the lambs. These lambs we will consider wethers, of the long or middle wool description, which are the best for mutton. At one year old these would have fleeces of superior coarse wool; and if we reckon it at the lowest price, such wool has reached the last twenty years —twenty-five cents a pound—and reckon six pounds to a fleece, which is light for that class of sheep, then we shall have nine dollars for wool the first year; and the second year the fleeces would be larger, though not quite equal in quality, yet the value would be about the same,—that would make eighteen dollars for the wool for both years; and calling the wethers one hundred pounds each, which would not be a great weight for this class of sheep fat, then we should have six hundred pounds of mutton, for which four and one-half cents per pound could easily be obtained, then we should have twenty-seven dollars for mutton, added to eighteen for wool, would give us forty-five dollars. How many heifers are there to be found at two years of age worth forty-five dollars? But suppose we take six ewe lambs, the first year we should have their fleeces, which, if they had no lambs, would be worth as much as the wether's nine dollars; the second year their coming in with lamb we would call the wool only six dollars, and we would only reckon six lambs, three for the butcher and three for stock. The butchers have been paying the present year four dollars per head, but we call them only three dollars, and two for those kept for stock, which would be fifteen dollars for wool and fifteen for lambs, and if we only called the six ewes two and one-half dollars each, would be fifteen dollars, then we should have forty-five dollars, the proceeds of six ewes, not bringing them in as many do at one year old, but at two, and reckoning in no couplets and low prices.

W. R. Putnam, in his report on sheep, gives the actual sale from one of his sheep for three years as follows: 1861, two lambs dropped the 5th of March, sold the 15th of June to the butcher for ten dollars; six pounds of unwashed wool sold at twenty-five cents per pound, one dollar and fifty cents. 1862, two lambs at four dollars and twenty cents, eight dollars and forty cents; four pounds of wool, one dollar and sixty cents. 1863, two lambs at three dollars and sixty cents apiece, seven dollars and twenty cents; six pounds

of unwashed wool at fifty-five cents per pound, three dollars and thirty cents,—making a total of thirty-two dollars in three years. Two such ewes as this would be a match for a pretty good cow.

Last August a friend of ours killed a wether sheep sixteen months old, a Cotswold with a little Merino. The carcass weighed 126 pounds, for which he received ten cents per pound; he obtained four dollars and fifty cents for its fleece, making a total of seventeen dollars and ten cents, leaving out hide and tallow. Where can the farmer be found who can equal these examples for profit by raising stock?

We are not in possession of sufficient data to make comparisons with dairy stock, but we are satisfied that it would be found largely in favor of sheep, while those farmers who keep cows and sell their milk at four cents per quart, would find it greatly in their favor to keep at least one sheep for every cow in order to replenish the pasture, with the phosphates, of which the milk cows deprive it.

When our estimate of the weight of sheep and value of lambs and wool are compared with the following statement, we think it will be allowed that we have been very moderate in our statements, and left a wide margin in favor of the sheep.

Mr. Lawrence Smith, of Middlefield, writing of his new Oxfordshire flock, a cross of the Leicestershire and Cottswold, says: "My yearling ewes will weigh in store condition from 125 lbs. to 175 lbs., fat wethers at three years old from 175 to 250 lbs. My heaviest breeding ewe last winter weighed 211 lbs.; my flock of store sheep and breeding ewes usually shear from five to seven pounds of wool. My ram fleeces weigh ten pounds unwashed, and will sell in that condition for twenty-five cents per pound. I never feed my store sheep and lambs with grain, but give them early cut hay, and occasionally a few roots." This statement was made previously to March, 1859, when wool was low.

O. C. Felton, Esq., in his report of the Berkshire Agricultural Fair, mentions a Cottswold buck that weighed 264 pounds.

Mr. Hiram Barbus, in his report for the same year, mentions a Leicester buck exhibited by O. S. Moore, of Southampton, five and a half months old, that weighed ninety pounds.

Mr. Charles G. Davis says, that the butchers paid him in June, 1861, for his Oxford Down ewes, eight dollars per head after the fleece was off. He sold his lambs for ten dollars, and buck lambs for twelve dollars to breeders.

Mr. Richard S. Fay says, that his lambs of the same breed often reach 100 pounds in five months on nothing but milk and grass. A yearling ram from Mr. Fay's flock gained 15 pounds in three weeks; and a ram lamb weighing 85 pounds at five months, weighed at six months 105 pounds, on nothing but grass. A five years' old ram of this breed weighed in the spring of 1859, 360 pounds. Mr. Fay's ewes weigh from 150 to 180 pounds. In 1859 his flock averaged over seven pounds of unwashed wool per sheep.

We might quote from others concerning different breeds and crosses, but we have quoted sufficient to show, we think, that our figures are placed at the lowest point, and if they prove the keeping of sheep profitable, what must these statements prove? They certainly cannot prove less than that it will pay to make fences, if not such as we describe, such as Mr. Putnam says Mr. Pierce, of Topsfield, has upon his farm, small posts placed by the side of the wall about twenty-five feet apart, set leaning so that a wire fastened to them will be over the wall about six inches above it, and then another wire ten inches above that. This, it is said, is durable and cheap. Tyro.

For the New England Farmer.

MAKING BUTTER.

I have read all the pieces upon making butter and cheese, published in the goodly columns of the *Farmer*, but have as yet (much to my disappointment) found nothing really applicable to us farmers on a small scale. I suppose writers think we that keep one or two cows, the same number of sheep, a pig and a horse, must reduce the advice to suit our case, but that we don't like to do, and the thought entered my mind that perhaps if I should give a bit of my experience, others might follow my example and thus enlighten me. We have one cow, a common milker, good as farmer' cows average, no better. She gives about eight quarts at night, and between four and five in the morning. We have no nice cool place to keep the milk, and use common tin milk pans, which we have no trouble in keeping sweet and clean; strain the milk in two at night, and after saving out a quart or more in the morning, strain the remainder in one. The cream rises pretty well, and we churn it once a week, always. The cream is very thick, the butter comes in about twenty minutes, and we call it sweet and nice; the average amount is five pounds a week. We salt it with our hands, then let it stand twenty-four hours, and work it over with our hands, let it cool and press it through a mould into nice little yellow cakes, just large enough for the butter plate, with a well-defined strawberry leaf upon them. You see our method is simple and plain. Now the question is, do others make butter as we do?

The best way to deal with milk pans, pails and cream pots, is to wash them out first in warm water and soap, then scald them with boiling water and wipe dry. Many wash pans that have contained sour milk with hot water; that is very wrong, as it will spoil them, by causing them to smell sour.

If this should prove interesting, I will at some future time, speak of making cheese, upon a small scale. Sarah.

Remarks.—We shall be glad to get your account of making cheese.

Draining.—The Canada *Farmer* well remarks that in such a spring as this the benefit of draining the land is most striking: "We saw two large fields adjoining each other yesterday, of precisely similar soil; one thoroughly drained and the other not; the drained field was quite firm and dry, and the crop (peas) peeping promisingly through the ground; while the other is full of water holes, and will require at least a week's fine weather before a team can be taken on it. The difference in the temperature of these two otherwise similar soils six inches from the surface was found by careful experiment to be more than seven degrees!"

TEN RULES FOR MAKING GOOD BUTTER.

In making good butter there are several nice operations to be gone through with which require an eye to cleanliness, forethought and some little experience.

1. On milking clean, fast, yet gently, regularly twice a day, depends the success of the dairyman. Bad milkers should not be tolerated in a herd, better pay double price for good ones.

2. Straining is quite simple, but it should be borne in mind that two pans about half full each will produce a greater amount of cream than the same milk in but one pan; the reason of this is the greater surface.

3. Scalding is quite an important feature in the way of making butter in cool weather; the cream rises much quicker, the milk keeps much longer, the butter is of a better color, and churns in one-half the time.

4. Skimming should always be done before the milk becomes loppered; otherwise much of the cream turns into whey and is lost.

5. Churning, whether by hand or otherwise, should occupy forty or fifty minutes.

6. Washing in cold soft water is one of its preserving qualities, and should be continued until it shows no color of the milk by the use of the ladle. Very hard water is highly charged with lime, and must in a measure impart to its alkaline properties.

7. Salting is necessarily done with the best kind of ground salt; the quantities vary according to the state it is taken from the churn—if soft, more; if hard, less; always taking the taste for the surest guide.

8. First working, after about twenty-four hours, is for the purpose of giving it greater compactness.

9. Second working takes place at time of packing, and when the butter has dissolved the salt, that the brine may be worked out.

10. Packing is done with the hands, or with a butter mull; and when butter is put into wooden vessels they should be soaked two or three days in strong brine before using. After each packing cover the butter with a wet cloth, and put a layer of salt upon it. In this way the salt can easily be removed at any time by simply taking hold of the edges of the cloth.

Butter made in this way will keep any length of time required.—*Maryland Farmer.*

HEALTH IN CALIFORNIA.—We clip the following paragraph from a communication in the *Prairie Farmer*, written by Edson Harkness, an old agricultural writer for that paper:

It was the health of my family that induced me to come here. More than one had weak lungs, and one had died with consumption. Two others I have good reason to think restored to sound health by coming here, but my wife was too far gone, yet the change without doubt prolonged her life at least a year. There are a few unhealthy districts in California, but the main portion is of remarkable salubrity. The perfect health of the children here attracts the notice of every observer. In eight years I have not known a case of ague or billious intermittent here in the mountains, except it might be persons from the valleys who come up to recruit.

A PATENT STEP LADDER.

We have rarely met with anything more perfect of its kind than a light, neat, and really ornamental *Step Ladder*, which we saw the other day at Mr. J. NOURSE'S Agricultural Rooms, and one of which we had immediately transferred, per express, to our own rooms in the country. There are various sizes, from four feet high to ten feet, and the prices vary from $2.75 to $5. It is certainly the lightest, strongest and most graceful thing of the kind we ever saw, and should be owned by every person who wishes to rise in the world, from parlor to store, and from the shop of the mechanic to the farmer, trimming, grafting and gathering fruit. One can carry a six-footer on his finger, it is so light, and yet it is warranted to sustain the weight of five medium sized men without breaking! Do not be too much in a hurry about it, but be sure to get one the first opportunity, if you ever have use for a step ladder.

For the New England Farmer.

A FEW WORDS TO FARMERS.

A friend severely criticised my farmer piece, viz. "Marry a farmer." The gothic cottage and fountain was a source of much merriment to him. He said, "There might, perhaps, be a few such farms in the world, but one did not often see them." If my sketch was an ideal one, is it not to be regretted that the farmer cannot erect tasteful dwellings, or perchance a fountain?

Must the farmer devote all his time to raising grain and potatoes, with no leisure to beautify his home, that it may be a source of pleasure to himself and family? And in after years, when Time has silvered his hair, he may sit under the trees his hand has planted. And is a fountain, with its crystal waters imparting its cooling airs around, a luxury to be confined to the grounds of the wealthy man of leisure?

Tilling the soil is a noble occupation if conducted properly. But how few farmers devote any time to improvements. They follow the beaten track of their ancestors, because "Dad did so." The farm is distasteful to most farmer's sons, for the reason it is not made interesting to them. The monotony of the drudgery continues from year to year, while their souls are in some other pursuit. Give the boy more recreation. Let him go into the woods and cull flowers, and there lay the rudiments for a systematic study of botany at some future time. Give him works on geology and chemistry, and he will derive much pleasure in analysing the different soils, and the formations of the rocks.

Above all, make your home attractive to your family. A tasteful villa is not out of place on a farm, if one can afford it. If not, assist your children to plant vines, erect trellises for their support. Let them have a sunny place for flowers, and assist them to transplant forest trees. Let them cultivate the smaller fruits, while you attend to the apple trees. Girls will be as much interested as the boys in these occupations. No matter if the sun browns their complexions; bronze is a prettier color than "pale milk." I believe farmers' daughters are not so well skilled in

household labors as their mothers. A young lady can master many of the sciences, become accomplished in the elegant attainments of refined society, and be a thorough housekeeper, without any detriment to her character as a lady. Domestic employment must be ranked as a fine art to be appreciated.

If there is no one but the wife to perform the menial duties that devolve on a farmer's wife, procure help for her at once. The farmer has his assistants—why not the wife? Keep things in order about the farm. Don't draw water from the well by a pole with pail attached; you may sometime see your wife floating in the water down there. But, then, hunting wife No. 2 is such a *delicious* business. No. 2 would undoubtedly have that well fixed to suit herself.

I presume my friend will perceive *this* is no ideal sketch. MRS. S. A. MIGHILL.

Georgetown, Mass.

For the New England Farmer.

METEOROLOGICAL RECORD FOR MAY, 1864.

These observations are taken for and under the directions of the Smithsonian Institution.

The average temperature of May was 59°; average midday temperature, 65°. The corresponding figures for May, 1863, were 59° and 67°. Warmest day the 31st, averaging 74°; coldest day the 3d, averaging 39°. Highest temperature 86°; lowest do., 36°.

Average height of mercury in the barometer, 29.11 ins.; do. for May, 1863, 29.23 ins. Highest daily average, 29.42 ins.; lowest do., 28.83 ins. Range of mercury from 28.75 ins. to 29.42 ins.

Rain fell on fourteen days; amount of rain 3.14 ins. Ten stormy days, and 3.02 ins. of rain in May, 1863. There was no entirely clear day; on three days the sky was entirely overcast. High winds occurred on the 2nd, 3d, and 24th; at other times wind moderate. The comparison of the temperature of the month of May, 1864, with that of May, 1863, indicates warmer nights this year than last; which have contributed much to assist forward vegetation. A. C.

Claremont, N. H.

CORRECTION.—In my meteorological table published in your paper of May 28, the record of the months of January, February and March was for the years 1860-1-2-3-4. Therefore the table should be cut in two between December and January, and the lower part moved one place to the right, putting the date 1864 over the right-hand column, then the whole will read correctly. As it now stands it reads entirely wrong for the three months named. A. C.

A PREVENTIVE OF BOTS IN HORSES. I will give you a remedy for bots which I have used, and known others to use for twenty years with entire success. Get some salt from a fish barrel and feed the horse once a week, and he will never be troubled with bots so long as the treatment is continued. My way of feeding is to mix it with claan salt in the proportion of about two parts of the latter to one of the former, and give a small handful once a week. If this is done from the 1st of January to the 1st of July, there is not much danger of bots. S. F. B., *in Iowa Homestead.*

For the New England Farmer.

MAKING BREAD.

Sugar and molasses are so high at the present time, that every good wife is trying to use as little as possible. And therefore, to fill up the place once asigned to cake and gingerbread, something else must be prepared. I know of nothing better than good, light, sweet bread and nice yellow butter. As far as I am concerned, I ask no better supper than I can make from those two articles, with a bit of cheese and a cup of tea, enriched by a spoonful of cream. Milk, cream, cheese and butter farmers' wives always have; then let them learn to make nice bread and they can live, let the war last as long as it may. Allow me to give you my way, and if you will try it I will warrant good bread, unless the flour is too poor to deserve the name.

Take one yeast cake at tea time, soak it in milk-warm water, thicken with flour, about like (what farmers' wives call) flap jacks; let it stand in a warm place, covered, until bed-time. Then take one pint of pretty warm water, a little salt and your yeast made from the cake, and add enough flour to make the whole a batter about the same consistency as you did the yeast cake. Cover it and let it rise until morning. Then add a small half-teaspoonful of soda, and flour enough to make it very stiff. Take it out upon your board, knead it thoroughly and divide into loaves; fill your baking pans half full, set it in a warm, but not hot place, say up on the mantle shelf, if you have one, and let it rise until the pans are just full. Then put into a hot oven; bake very quickly. Take it out, wrap it up in a cloth dipped in cold water, and if, upon cutting, you don't find good bread it wont be like mine. Your children will take it instead of cake and gingerbread, and say not a word. Your husband will make his supper of it and forget his usual piece of pie. Your neighbors will all inquire "how you make such nice bread," and go and do likewise.

If you have good, nice yeast, so much the better; use one cupful for a pint of water. I use yeast in the winter and buy yeast cakes in the summer. SARAH.

CABBAGE FLEAS.—A farmer in Chatauque Co., N. Y., writes to the Farmers' Club of the American Institute: "I want to tell my experience of ten years in cabbage raising. I first learned of a Swedish woman. Seeing some very nice plants, I wished to know how she raised them without the lice or fleas destroying them. She said she took droppings from the hen-roost, a small quantity; a little new milk, enough to soak what seed she wanted to plant; put in her seed, mixed all together, let it soak for a few hours—eight, ten or twelve. She said fleas never would disturb the plants. I thought as I had lost plants from fleas eating them, I would try her method. For ten years it has proved a success. I select a sunny spot near the house, so as to throw on the slops from the kitchen. I make the bed loose by putting on leached ashes and hen manure. When soaked enough I sow the seed, stirring it in well, then if it should be a drying sun, sprinkle on water often, say three or four times a day. Sow the seed as early as the ground is fit to work, set the plants in place when three or four inches high, keep them well watered and the ground nicely worked, and you can raise cabbage.

For the New England Farmer.

RETROSPECTIVE NOTES.

DISEASES OF FARM STOCK.—Under this caption, in the issue of this paper of April 30th, we made some remarks intended to show that the want of information in regard to the causes and cure of the diseases of farm stock, resulted in great loss to the farmers and much needless suffering to the poor brutes; and we also made some suggestions intended to assist those who are desirous of a better knowledge of proper medical treatment of domestic animals.

We return to the subject in consequence of having met with some very sensible and useful observations in connection with it, from the pen of Dr. Henry S. Randall, in a recent issue of the *Rural New-Yorker*. After some remarks upon the folly and venturesome presumption of a correspondent who wrote that he tried everything he could hear for of grub in the head, which he supposed to be the ailment under which some of his sheep were laboring, Dr. Randall remarks that he who "doctors" at random, or because some person as ignorant as himself has recommended this or that, both being ignorant of the properties of the drugs prescribed or used, stands more than a hundred chances to one of doing a positive injury to his poor, mute, defenceless patient. "We have no patience," he says, "with this trifling with the lives of our valuable domestic animals. We have a right to kill them, in a prompt and decent way, when our needs require it. But we have no right to murder them by inches and in torture, by our infernal nostrums and ignorant experiments.

"The most ignorant is always the most presuming person in such cases. The man of large experience and knowledge finds out that 'doctoring,' under the most favorable auspices, for serious and constitutional maladies, is very uncertain in its results, and that, usually, sheep which are 'doctored' much, die. His opinions, therefore, are given with hesitation. But your ignorant booby, who knows nothing about the properties of drugs, and who never owned a hundred sheep in his life, understands everything at a glance. He either had or saw 'just such a case once'—such and such things were given—and the sheep 'got well right off.' And some sensible men listen to such nonsense!"

After showing that this blind and inconsiderate way of experimenting with animals laboring under serious disease, bad as it is, is not yet so bad or foolish as that of those intermeddlers with nature, who drug and dose animals in perfect health, to prevent some future anticipated or dreaded disease, Dr. Randall, remarks, most judiciously, that the whole doctrine of medical preventives, as commonly understood, is based on error, advises abstinence from drugs and trying everything one can hear of, even when disease seems threatened, and concludes with the following sensible admonition, which it would be well if every owner of farm stock would follow, both for themselves and for their suffering animals: "My friend, if you don't know what to do, and have no well-informed, experienced and intelligent friend to tell you what to do, it is better to give healthy surrounding, cleanliness, fresh air, good nursing, and then fold your arms and wait for results. In nineteen cases out of twenty, those results will be less calamitous than they will be if you fall to drugging and dosing. Lay it down as the first and best rule of medical practice among sheep, that when you do not know what to do, do nothing at all. This is true of all animals." We conclude, for the present, by saying that there would be less sickness if there were more good management and kind treatment.

MORE ANON.

THE PRICE OF WOOL IN 1864.

Every circumstance would seem to show that wool must bear higher prices this year than it did last year. Nothing has occurred, or is likely to occur, to diminish the consumption. First, our own great civil war continues to rage—expanding rather than contracting in the magnitude of its operations and consequently in the employment of men. The most sanguine have ceased to anticipate its termination before the close of 1864. Foreign wars have not diminished, and there is a strong probability that they will increase. And while the extra demand for woolen clothing will thus be kept up, the ordinary demand will be promoted by the fact that there is less than the usual surplus of woolen clothing left over from last year, in the possession of consumers. During the high prices of 1863, a disposition was manifested, throughout the world, to economize in its purchase. Even in our own country, where there is less providence in such matters in proportion to means than in any other, there was an obvious retrenchment in this particular. Accordingly nine out of every ten persons have less spare woolen garments than they were in the habit of having before woolen fabrics rose to such high prices. The consequence is that they will be compelled to purchase more freely during the current year; and the least increase of consumption per head, throughout the wool consumers of the world, will sum up to an enormous aggregate.

Second: The price of wool is considerably higher abroad than last year, and the tendency is still steadily upward. Old accumulations are exhausted. In some countries the product, owing to climatic and incidental causes, is diminished in quantity and quality. Especially is this true of Buenos Ayres and the Cape of Good Hope. These two countries supplied the United States last year with 32,000,000 lbs. of wool—within a million pounds of half of the whole quantity imported; and they supplied us with considerable more than two-thirds of all our imported *fine* wools.

Third: No doubt exists in any quarter, that the tariff on foreign wools will be materially increased during the present season of Congress.

Fourth: Gold, and consequently exchange, is gradually advancing. Gold yesterday (June 6th) reached 194—so that it would have required $1.94 in our currency to buy a dollar's worth of wool in England, at the Cape of Good Hope, or in Buenos Ayres. This state of things alone should keep wool fully up to the best last year's prices, provided the consumption, the tariff and foreign production and prices remained the same. But supposing the war to continue, the increase of foreign prices and of the tariff, and the diminution of foreign production, must necessarily, according to all the laws of trade, advance the price of wool in our country in 1864. The usual effort will probably be made to depress the new clip, but if the growers patiently bide their time, all these efforts

will fail. And on whom will this advance in wools operate as a special hardship? All the previous circumstances above enumerated, united, have not carried up wools in proportion with most of the other great staples of consumption. Woolen goods, including cloths, carpetings, &c., &c., are about 100 per cent. higher than before the war. Linens, on the average, have probably advanced full 100 per cent., if not more. Cottons have advanced from 300 to 500 per cent. Hardware generally has advanced at least 100 per cent. Pig iron has advanced at least 300 per cent.; bar iron 150; carriage springs 250; tin 150; cast steel 100; nails over 140; screws and bolts, stoves, axes and trace chains 100; lead, window glass and paints 100; oil say 125, &c., &c. It probably would not be unsafe to assume that articles of consumption generally, except provisions, have doubled in cost.

Some of the articles above enumerated have been rendered dear, like wool, by scarcity—others not. Wool has been brought into immensely increased demand for consumption as the only extensively available substitute for cotton in a multitude of important uses. It is not excelled if equaled in importance by any one single specific article of consumption, and in none, probably, except cotton, is the present supply less equal to the demand. Yet wool, as already said, has not risen since the opening of the war like other less important, and in various cases, less scarce commodities. The rise in 1863, in the country generally, in fine and medium wools, probably fell below 60 per cent. In coarse, it was higher.

How is this to be explained? Partly, unquestionably, by the fact that the manufacturers, who are the ultimate purchasers of all wool, are but a mere handful of men, who are wealthy and highly intelligent in their occupation, and who, from the smallness of their number and their business-like habits and associations, are capable, in their pecuniary operations, of acting almost with the unity and energy of a single individual. In this respect, and consequently in the power of effecting their objects in the market, they are to the disunited producers acting without concert, what a Macedonian phalanx is to an unorganized mob. That they have struggled during the past year with indomitable resolution, and with a very great degree of success, to keep down the price of wool, is not, we think, to be disputed.

Are they to blame for those efforts? Whether so or not, we are disposed to believe that the producers would have done precisely the same, with the same opportunity for doing it. Human nature is pretty much alike in all occupations! We take occasion to say this, because in nothing that we have uttered would we be understood as preaching up any crusade against the manufacturers. We want the wool-grower to have all that belongs to him, and the manufacturer to have no less than belongs to him. A feeling of hostility between them is only injurious to both. If the contemplated tariff on woolens is enacted, there is no occasion for the former to entertain any jealousies of the latter. He will be placed in a situation where even the circumstances above named will give the manufacturer no advantages over him. But let there be reason and moderation on both sides. In the day of his success, let the wool grower never forget one fact, viz., that in pursuing any line of action which will necessarily prove destructive to the manufacturer, he only performs the Sampsonian feat of tearing down the edifice whose ruins must overwhelm himself. All our present advances in wool growing will be thrown away and lost unless American manufacturers continue to flourish. No American in our day and generation, can raise wool for profitable exportation, at least north of Texas and east of the Rocky Mountains.—*Rural New-Yorker.*

PRUNING FRUIT TREES.

The following sensible and practicable remarks are copied from the Michigan *Farmer:*

Pruning is a scientific operation, requiring knowledge combined with good judgment. The apple tree is an institution that should never be touched with saw or knife unless you have a good reason for it. That is, you should know *how, when and what* to prune, or let the tree alone. The rules of pruning are mostly negative, to avoid doing mischief to the tree. The plum and cherry rarely require any, the pear but little, the peach more, and the apple more than all. The peach should be cut back at setting so as to create a low head, and then annually cut off from the head one-half of the last year's growth of each shoot. This is what is called "heading back," or "heading in," and this heading in process should be practiced on the pear.

The apple needs pruning or not, according to the form and habit of growth of the tree. Some trees grow with heads erect, some diverging, some spreading, and some drooping. Others are ascending, while others have an irregular or straggling growth; hence much judgment is required as to what and what not to prune. Every limb should be so cut at its "swell" as to make the least wound. Always avoid cutting off very large limbs, as it endangers the health, if not the life, of the tree. The little fruit spurs on the bodies of the larger limbs should be generally left on. Some thick headed trees, like the Spy, need half thinning out in the centre of the top, to let the sun in to ripen the fruit. Those sorts with sparse heads need thickening by heading back the limbs. It should always be born in mind to keep the head of the tree well balanced. The apple should be pruned very lightly if done in the Spring, and a little done every Spring. The month of August is the best time for heavy pruning, for the reason that if you prune heavily in the Spring, you have taken away so many channels for sap that the tree is obliged to throw out limbs—"sap-suckers"—to carry it off; but if you prune in August, when the flow of sap is weak, the wound heals over, and, at the same time, new channels are formed for sap, so that in the following spring the sap will take to those channels without throwing out sap-suckers. It is rare to see sap-suckers from August pruning.

THE CURRANT WORM.—A correspondent of the *Rural New Yorker* recommends the following wash as death to the worms, but not injurious to the leaves:

Take one oz. carbonate of ammonia; 1 oz. nitre. Dissolve in one quart of soft soap; mix the whole thoroughly in nine gallons of rain water.

HAVE PATIENCE WITH THE BOYS.

Labor is scarce and produce is likely to be extravagantly high this season. While farmers will be obliged to economize in the amount of hired help, they will be anxious to raise all they can. There is, therefore, danger of undue anxiety of mind and over-exertion of body. This year, if never before, let patience have her perfect work. Have patience with the new machine. If at first it does not meet your expectations, if it is harder to manage than you anticipated, and fails to do all you hoped, have patience; "practice makes perfect."

Especially is this old saw true in respect to the boys, for whom we would ask a large share of patience—patience not only with the poor manner in which they accomplish their tasks, but patience, and a great deal of it, with their inability to do all you would like to have them do, now that the work presses so hardly in all directions. Just take that boy's hand in your own; feel of his arm, his shoulder, chest and ribs—wonderfully, fearfully, slightly made—is it strange that he accomplishes so little? that he so soon tires, and complains of the "hard row" that has fallen to his lot? Will fretting or scolding harden his bones, toughen his sinews, increase his endurance, or make him love the hard work of the farm?

Farmers are generally careful about putting their colts to hard work before they get their growth. It is well they should be. Many a fine animal has been injured and its value greatly decreased by being used too much before its system was sufficiently developed and matured.

That parents intend to be much more careful with their boys than with their horses we have no doubt. But the boys are so much longer in "the green tree," their bones harden so much slower than those of domestic animals, that there may be danger in the present scarcity of farm help, of laying out more work than ought to be performed by the available working force of the farm, and, consequently, danger of "putting up" the boys too hard; not purposely, not willingly, but from an apparent or supposed necessity.

But the body is not all. There is danger of discouraging their minds as well as dwarfing their bodies; of breaking their spirits as well as their backs; of distorting their fancy as well as their frames. In fact, everybody knows that "all work and no play makes Jack a *dull* boy"—dull of mind as well as of foot.

What, then, shall be done? With Cowper, we boast,

> "I would not have a slave to till my ground,"

nor would we have our sons so overworked as to become as stiff and stupid, as dull and clownish as the ignorant peasantry of Europe. The history of New England, and, in fact, of all the other free States, has demonstrated that there is a happy medium between these alternatives; that the day-laboring farmer may improve the mind as well as the soil; that he may think as well as work. The great mission of the present age and of the present generation is by many supposed to be the abolition of slavery, and the demonstration of the true dignity of labor. But do not the models and drawings of our national Patent Office show that at the bottom of all these efforts lies the idea of substituting machinery for slavery—of doing by ingenious combinations of wood and iron, put in motion by steam and horse power, just that kind of drudgery which from time immemorial has been performed by slaves. The big water-wheel revolving in the dark basement of the factory; the hissing boiler, which, like the Southern slave, is cautiously "lodged" in an outside "cabin;" the patient ox and the noble horse are henceforth to be our "hewers of wood and drawers of water." And our sons,—they are to be overseers; taskmasters,—not of human sinews "bought and sold;" not of down-trodden, abused man, thank Heaven, but of the inanimate, soulless machine.

The question, then, is not simply whether any given tool or machine will save money. We should consider whether it will save hard work,—

A few years since we passed two farms in early hay-time. On the first farm a man and a boy were mowing in a lot near the road. We passed along leisurely. The man was far ahead of the boy, who was slowly and awkwardly hacking his way along. After "mowing out" and whetting his own scythe, the man walked back somewhat impatiently, to the boy. "Why don't you put the heel down?"—"Stand up to your grass."—"There! right into the ground again!"—"Seems so you never would learn." "Well, it's all loose here, and bent out there," replied the boy, as we went out of hearing of what else he had to say, and out of sight of the old black implement in his hand. On the next farm a man and two boys were mowing—the shortest and probably the youngest was on the lead. Their scythes and their hats looked new. We heard nothing of their conversation, but everything indicated that they were starting right—that their tools were good, the iron sharp, and the boys full of courage and ambition.

This courage and this ambition should be kept alive, if possible, during this season. They are worth more than good tools cost; more than pretty frequent holidays cost; more than kindness, more than pleasant words cost. We see it stated that a farmer in Illinois kept up the courage of his boys by giving two of them,—one ten, the other twelve years of age—twelve dollars, telling them playfully, to "go and buy out" a neighbor

who had a large flock of fine-wooled sheep. The boys bought four ewes. This was three years ago. With this spring's increase, the flock and the wool they have produced is estimated at nearly $300. The *Prairie Farmer*, who tells this story, says that in all that section small boys are enthusiastic sheep raisers, talk precociously of diseases, and discuss earnestly the relative qualities of different breeds, grades of wool, &c.

We commend the example of these parents.

EXTRACTS AND REPLIES.

An Excellent Alderney Cow.

Having noticed in your last paper an account of a fine cow in Holliston, I thought I would like to tell you of a full blood Jersey. I bought her of Mr. Thomas Drew, formerly of Worcester, when she was five weeks old. She had her first calf when she was two years old, and would make 1¼ pounds of butter in a day. She brought her second calf when she was four years old and made in one week eleven pounds and ten ounces of butter. She had her third calf the third day of last April. She is now five years old, weighs only 700 pounds, and made last week 15¾ pounds of butter. J. W. Morse.

Northbridge Centre, June 15, 1864.

Remarks.—The delicate, deer-like appearance, and the rich milk of the Jersey cows, seem to fit them especially for the gentleman's lawn and the private family, yet Mr. Flint says, in his treatise on Dairy Farming, that "one or two good Alderneys with a herd of fifteen or twenty ordinary cows will make a great difference in the quality of the milk and butter of the whole establishment."

Making Sugar---Keeping Stock.

As there have been some big sugar stories told in the *Farmer*, I would like to tell what has been done in this town. There have been made, this last spring, by ten farmers within one mile of me, twenty-three thousand pounds of sugar. You may think we live in the woods and on sugar, but the same persons have wintered twelve hundred sheep, one hundred and eighty-two head of cattle, and thirty-five horses.

Shrewsbury, Vt., June 12, 1864. C. Graves.

Remarks.—These facts are scarcely more creditable to the "ten farmers" of Shrewsbury, than the manner of the announcement is to friend Graves. It does our poor old eyes good—it does the younger and brighter eyes of the printers good,—to see now and then a faultless manuscript; one in which the writing is neat and distinct, the words and lines properly separated by liberal blanks, the capital letters and marks of punctuation just as they should be on the printed page, and last of all without a superfluous word. We know where Shrewsbury is; have seen her mountains and something of her farms, and hope Mr. Graves will favor the readers of the *Farmer* with some further notice of the industry of his neighbors. Have not the experience of these ten farmers who produce 2300 pounds of sugar, keep 120 sheep, 18 cattle and 3½ horses, on an average, to each farm, elicited some facts which, if published, would encourage and benefit, possibly, some of their less prosperous brother farmers?

Substitute for Butter Used by a Workman at the Portsmouth Navy Yard.

As my knowledge of botany has lain unused of late I will not undertake to describe the plant that he says produces the fruit which is about the size of first picking of the baldwin apple. It arrives at maturity about August 10th, when it is picked, laid on plates and punctured, when there exudes a substance which, when mixed with a small quantity of milk and sugar, acquires the consistency of butter. It can then be worked into balls the same as butter. Many who have used it prefer it to butter. My informant says he has used that kept three months and found it sweet and good. The first plant was given to him by a naval officer who arrived at Portsmouth from some foreign station.

Seabrook N. H., June, 1864. S. P. M.

Remarks.—At first thought we supposed our correspondent was slyly recommending good large baked apples; if that is not the case, will he please brush up his botany a little, or jog the elbow of his navy-yard friend who is so quietly dodging the present high prices of "ball butter," that a little further information may be imparted as to this wonderful plant from some "foreign station."

That Check-Rein.

If the neighbors of the man who still persists in the use of the check-rein, will tie up his arms and put him on the double-quick over some twelve or fifteen miles of a hilly road, he will learn to appreciate the disadvantages under which a horse travels with his head fastened in an unnatural position. S. P. M.

Small Cows.

I saw a breed of cattle a few days since, which, as milkers, are preferred to any others by those who like small feeders. They do not give as much milk as some larger cows, but the quantity is large for their size. The cow that I saw did not exceed in size a yearling of the native breed. Her "points" were all first-rate, the only disproportion being her bag, which was too large for her convenience. S. P. M.

Seabrook, N. H., June, 1864.

Remarks.—We publish the foregoing as a specimen of that indefiniteness which greatly mars many agricultural communications. Whether our correspondent has been smitten by a little fawn-like Jersey, or by some diminutive Irish, Kerry, Norman, or Canadian breed, is more than can be gathered from his statements.

FACTS BEARING ON CATTLE BREEDING.

The Secretary of the Massachusetts Board of Agriculture gives the following abstract of some remarks made by Prof. Agassiz at a meeting of the Board last December. Whatever may be thought of the practical truth of the theory advanced, if it shall lead to greater caution as to the use of inferior males either first or last, it can do no harm in that direction at least.

"After expressing some sound sentiments with regard to the connection between science and practice, and showing how the two ought to be connected in the business of agricultural education, he presented an elaborate view of the laws of reproduction, and their connection with the breeding of farm animals, as an illustration of the vast importance of profound science in guiding the farmer to his work. He had found by experiment that the process of fecundation was governed by some extraordinary laws. The common turtle, for instance, does not commence to breed until it is 7 years old. At the second year, connection between the male and female takes place, without any apparent result. The third year connection takes place, and still no eggs. And so on until the 7th year of the life of the female, when she commences bringing forth maternal eggs. At this time the eggs in the ovaries present various

sizes, as if they had been impregnated at the different periods.

Certain very curious facts in the reproduction of other animals, go to show that the impregnation of an ovum may take place a long time previous to its development, and that it probably only requires the stimulus of future connection with the male, to bring it into existence. He had experimented with a Newfoundland bitch, by coupling her with a water-dog, and the progeny were partly water-dog, partly Newfoundland, and the remainder a mixture of both. Future connection of the same bitch with a greyhound produced a litter like the former, with hardly a trace of the greyhound. He had bred rabbits with the laws established by this experiment, and had at last so impregnated a white rabbit with the gray rabbit, that connection of this white rabbit with a black male invariably produced gray. A fact stated by Mr. Chapin, of Milford, that a hen turkey would lay two or three successive litters of eggs, having been impregnated only for the first litter, was new to Prof. Agassiz. It was undoubtedly with a knowledge of these laws of reproduction, perhaps profounder than that which we possess, that the Jewish code declared that if a widow having children marry again, the children of her second husband shall be heirs of the first.

These laws, established by these experiments, should govern us in the breeding of our animals, and should make us careful in a selection of males for the first impregnation of females, as upon this depends the future value of the female in producing the type which the breeder may design.

The lecturer threw much light on the subject of breeding and rearing cattle, and clears up many points which have always been troublesome to the breeder.

In conclusion, Prof. Agassiz dwelt upon the influence which soil and climate exercise in developing the animal system. Large frames, great bony structures, grow on limestone soils, smaller bones on granite formations. He thought this ought to be taken into consideration in selecting animals for any locality. And he was moreover satisfied that a breed of animals could, if confined to any given spot, grow into conformity with that spot.

The Professor confirmed these views with great distinctness by reference to the animals which represent the different cantons of Switzerland."

SUMMER DRINK.—A "Practical Farmer" recommends in the *Germantown Telegraph* the following as a refreshing beverage, and one that may be safely drank in the hottest weather: Take of the best white Jamaica ginger root, carefully bruised, two ounces; cream of tartar one ounce; water, six quarts, to be boiled for about five minutes, then strained; to the strained liquor add one pound of sugar, and again place it over the fire; keep it well stirred till the sugar is perfectly dissolved, and then pour it into an earthen vessel, into which you have previously put two drachms of tartaric acid, and the rind of one lemon, and let it remain till the heat is reduced to a lukewarm temperature; then add a tablespoonful of yeast, stirring them well together, and bottle for use. The corks must be well secured. The drink will be in high perfection in four or five days.

THE RETURN OF THE BIRDS.

BY WILLIAM CULLEN BRYANT.

I hear, from many a little throat,
A warble interrupted long;
I hear the robin's flute-like note,
The bluebird's slenderer song.

Brown meadows and the russet hill,
Not yet the haunt of grazing herds,
And thickets by the glimmering rill
Are all alive with birds.

O Choir of Spring, why come so soon?
On leafless grove and herbless lawn
Warm lie the yellow beams of noon;
Yet winter is not gone.

For frost shall sheet the pools again;
Again the blustering East shall blow,
Whirl a white tempest through the glen,
And load the pines with snow.

Yet, haply, from the region where,
Waked by an earlier spring than here,
The blossomed wild-plum scents the air,
Ye come in haste and fear.

For there is heard the bugle-blast,
The booming gun, the jarring drum,
And on their chargers, spurring fast,
Armed warriors go and come.

There mighty hosts have pitched the camp
In valleys that were yours till then,
And Earth has shuddered to the tramp
Of half a million men.

In groves where once ye used to sing,
In orchards where ye had your birth,
A thousand glittering axes swing
To smite the trees to earth.

Ye love the fields by plowman trod;
But there, when sprouts the beechen spray
The soldier only breaks the sod
To hide the slain away.

Stay, then, beneath our ruder sky;
Heed not the storm-clouds rising black,
Nor yelling winds that with them fly;
Nor let them fright you back,—

Back to the stifling battle-cloud,
To burning towns that blot the day,
And trains of mounting dust that shroud
The armies on their way.

Stay, for a tint of green shall creep
Soon o'er the orchard's grassy floor,
And from its bed the crocus peep
Beside the housewife's door.

Here build, and dread no harsher sound,
To scare you from the sheltering tree,
Than winds that stir the branches round
And murmur of the bee.

And we will pray, that ere again
The flowers of autumn bloom and die,
Our generals and their strong-armed men
May lay their weapons by.

Then may ye warble, unafraid,
Where hands that wear the fetter now,
Free as your wings shall ply the spade,
And guide the peaceful plow.

Then, as our conquering hosts return,
What shouts of jubilee shall break
From placid vale and mountain stern
And shore of mighty lake!

And midland plain and ocean-strand
Shall thunder: "Glory to the brave,
Peace to the torn and bleeding land,
And freedom to the slave!"

Atlantic Monthly for July.

For the New England Farmer.

HORSE HOE---CORN---POTATOES.

Mr. Editor:—The farmer seems to have his full share of all the improvements of the day, and the last invention is the "horse hoe," which looks like a thing of great utility, and far surpassing the cultivator or horse plow, the latter the only implement known to me when a boy for working among the corn and potatoes.

All that seems to be needed now to complete the farmer's list, is a perfect potato-digger, a corn-husker, an apple-gatherer and a sheep-shearing machine. It may not be too much to expect perhaps, that the time will come when a flock of sheep may be driven, full run, single file, through a machine, and all come out sheared from tip to tip. Genius, machinery and horse power, have immeasurably lightened the labors of the farmer, and his hard work has almost become a pastime.

In regard to hilling corn, or scarcely making the form of a hill, is it necessary? Will not this farmer's "horse hoe" do nearly all the work? See the corn roots diverging from every point, like so many guys, to hold it erect against heavy winds. Hoeing deep and hilling high, must cut off many roots, and the holes that are made leave a fine escape for the water, without doing as much good as if the land was level.

What can we say of potatoes, with their long, clinging roots; the umbilical cord, connecting the potato with the vine, (tough as a whip-lash;) the little brush-like roots around the vine, to give growth to the top, while the combined powers of earth and atmosphere contrive to give us our mother earth's best esculent vegetable? Is hoeing deep and hilling high the better practice for this crop? While we doubt it to some extent, we would beg to ask the practical farmer what is best. He ought to know. It would be a simple test to hill, half hill, and barely add a little fresh earth in weeding the third row, and at digging time the experiment would be fairly tested.

These suggestions may be of no avail to your readers, yet cultivation of these two most important crops, cannot be too well understood. I trust they may elicit a reply from some of your thousands of readers that till the soil.

Brooklyn, L. I., 1864. H. Poor.

Remarks.—Excellent suggestions. We hope some of our progressive farmers will give us their views on the subject of hilling, with reasons for and against.

For the New England Farmer.

THE APPLE TREE APHIS.

Mr. Editor:—The apple tree aphis mentioned by your correspondent J. J. Watson, of Washington, Vt., in the *Farmer* of June 18th, is not a new thing under the sun. It has been known here for a long time; and though somewhat injurious to the apple trees, has not caused any such painful evils as your correspondent fears. The insect is most noticed late in autumn and early in spring, being more concealed in summer by the abundant foliage of the trees. It is most seen in summer on young sprouts growing from the hedges and limbs of neglected trees, where the wood is new and tender, and new leaves are continually putting forth. I write to speak of the enemies of this insect. The greatest preventtive of its increase is the protection of the birds, many kinds of which feed extensively upon it. Some of our seed-eating birds, the sparrows and finches, which most people suppose do but little good, or harm, to the farmer, are very fond of them, and destroy multitudes of them in autumn and spring. I have often noticed the tree sparrow and the chipping sparrow picking them off the trees; and for weeks about the last of October and the last of April and fore part of May, the pine finches and the common yellow birds frequent the apple trees in small parties, and seem to derive a large part of their food, especially the pine finches, from these insects. When the buds are opening in May, they may be seen clinging to the extremities of the small branches, often head downwards, searching for and devouring the aphis. At these times I have found hundreds at a time in their stomachs on dissecting them, and rarely much other food. Many kinds of warblers destroy them in great numbers, particularly the yellow-crowned warbler or myrtle bird, the Nashville warbler and the blue yellow-backed warbler, which are so beneficial to our trees in May, when a variety of destructive insects are swarming among the opening blossons and tender leaves, upon which these species and many others exclusively feed. J. A. A.

Springfield, Mass., June 20, 1864.

For the New England Farmer.

BREEDS AND MANAGEMENT OF STOCK.

Read before the Concord Farmers' Club by John B. Moore.

The term *breed*, as I understand it, applies only to the distinct families of animals who have been bred without admixture of blood with other animals, for so long a period of time as to have their various points become so fixed and permanent as to render it certain that the offspring bred from the male and female of such stock will always show the same points possessed by the family to which it belongs; and if an individual animal said to belong to any one of the different breeds should produce an offspring not having the points belonging to that breed, it would be sufficient cause for saying that the animal was not of pure blood.

The following distinct families of animals are among the number usually designated as pure bred animals, namely:—*Durham*, or *Short Horns*, *Herefords*, *Devons*, *Jerseys* and *Ayrshires*. The term *Native Breed*, which we so often hear used, is true in only one sense, that is, that the animals to which it is applied are born here, and the term *native* could be applied with just as much propriety to the Devons, or any pure-blooded animals who have been bred in this country, through many generations, as if they were also born here, and in some instances their parents before them. Perhaps the term *grade* would be a better name for all animals not of pure blood, and I will venture to say, that no animal can be found in this vicinity, called native, but that has more or less of blood in its veins of one or more of the breeds before named. And if you examine the best authorities upon breeds and breeding you will find that those classes of cattle that I have named have been bred for special purposes, and in each case with a particular object in view. Thus the Durhams and Herefords for beef certainly excel all

other breeds; the Devons for beef, dairy and working oxen. As working oxen they excel. The Ayrshires and Jerseys for the dairy, in which they excel all the before-named breeds, and neither of the families combine all the qualities required for beef, work and the dairy.

It is of secondary importance to us to raise beef and working oxen, compared with animals capable of producing large quantities of good milk, which we sell in the form of milk or of newly-churned butter. Of the above-named breeds we find that there are only *two* families now prominent enough to call your attention to as dairy stock, namely:—the Jerseys and Ayrshires, and for the improvement in animals for the dairy we must rely upon these two breeds. I do not mean to say there are no good milkers in the other breeds, but they are exceptions to the general rule, such not being the fixed habit of these breeds.

Some may think it would be better to raise a breed of our own, or, in other words, a pure American breed from our native stock, so called, thinking that such a breed would be better adapted to our pastures and climate than the pure bred cattle we now have. It is evident that it would be the work of two or three generations of men, at least, to produce such a breed—but premising that such is the fact, then the most feasible way for us to breed cattle for milking purposes is to adopt one or both of these breeds, or, in other words, take advantage of the improvements made for the last hundred years in the Jersey and Ayrshire cattle for making that improvement. As it would take a long time to raise a sufficient number of pure bred animals to stock all our farms, perhaps the best way would be to select good-shaped, medium-sized cows of our common stock, who have a thin, soft-handling skin, a broad and capacious udder, with medium-sized teats, and a heifer, the product of such a cross, will be likely to be a good milker, although that will not always follow. To raise good milking stock with any certainty, it will not do to breed from a grade bull; because, although he may be a fine animal to all appearance, he might,—and probably would,—mark many of his progeny with the bad stain of blood in his composition; and the chances of producing a fine animal would be much less with such a bull and the same cow than with one pure bred. Good cows, raised in this way, will answer our purposes for milking, and for which they would be as good, probably, as pure bred animals. Any one breeding pure blooded stock should confine himself to one breed, as in a stock of cattle all of one blood there would be no danger of accidental admixture of blood, and they will look better for being all nearly alike.

It may be urged that we should have a breed of cattle that, after they were worn out for milking purposes, would be as valuable for beef as the Durhams. The Durhams, as a whole, are not good milkers, although some families of them are much better than others; but you will find that those who do give a fair quantity of milk are inclined to go dry five or six months each year.

A Durham cow that will make 600 pounds of beef after she is laid aside for milk, will be worth about $25 for the purpose of turning out to fat in the spring of the year. My idea is that an Ayrshire or Jersey cow, that will make 550 pounds of beef after being done with for milk, will give dairy nine months of the year, two quarts of milk a day at least more than the Durham. If they give only one quart of milk a day more, in nine months it would, at two and a half cents a quart, amount to $6.80, which, calling seven years the average number of years that cows are usually milked, would amount to $47.60, and the difference in value of the two cows for fattening would be only from $2 to $5, leaving from $42 to $45 in favor of the milker.

The next thing after procuring a good calf is to raise it properly. Much depends on this, as it is a well established fact that no animal, half-starved for the first two or three years of its life, will ever come to the standard of perfection of the breed to which it belongs,—so that good feeding from the time of dropping the calf up to the time of the heifer coming into milk, is necessary for the perfect development of the animal. I do not mean by this that I would have an animal pampered, but that they should be well fed and kept in a thriving condition all the time, and in the winter more particularly, and that they should always be kept from vermin, which are often allowed to increase to such an extent as to almost eat the very life out of our young cattle. Then they should be sheltered from the storms in cold weather, for they will suffer from being exposed to the cold rains, and then left in the yard or put in a cold barn, where it will take them many hours longer to become dry and comfortable. Some persons say it is no matter, it will make them tough and hardy to stay out in the cold storms. But what would be thought of a man who would keep his children out all day in a drenching rain, and then let them dry their clothing on their backs in a cold room at night for the purpose of making them hardy? Children would probably soon die under such treatment; but animals, having more tenacity of life, survive, but do not attain to such perfection under that treatment as they would if properly sheltered?

I do not know but the idea of poor keeping is encouraged by many of the statements in regard to cattle made to the various agricultural societies for the last few years. The substance of some of them is pretty much as follows:—A gentleman enters a fine fat ox or cow for premium, and in his statement says that the animal was kept on poor hay, without any grain during the winter, and summered in the pasture with very short, poor feed; or of a cow, giving an enormous quantity of milk—that she has been kept on very poor feed, and a little corn fodder once a day to eat. Can any sensible person pretend than an animal can be fattened, or made to give a large quantity of milk, without good and nutritious food? Men that make such statements—instead of receiving premiums—should have their statements sent to the grand jury, for them to inquire into the matter, and see if they would not be proper subjects to be indicted, under the statute, for cruelty to animals!

A uniform kind treatment, regularity in feeding, good shelter, cleanliness and a plenty of nutritious food fed to them in comfortable stalls, in the winter, good pasturage in the summer, with an abundance of good water at all times, is what I suppose would be called good management. If I were called upon to state some of the points for

which Jersey cattle are noted, I should say, gentleness, quietness, both in the pasture and in the barn, a constant and regular flow of milk, many of them milking the whole year (which I very very much doubt the profit or utility of) but think it would be better to let them go dry from six to eight weeks. It not only gives them time to recruit themselves, but their calves are much stronger for it. They are also noted for the richness of their milk, the fine yellow color of their cream and butter, and for its fine flavor.

FINE-WOOLED SHEEP IN ILLINOIS.—The editor of the *Prairie Farmer* says that in a trip through Du Page and Kane counties he scarcely saw a farm but had its small or large flock of sheep. Barns costing twenty-five hundred dollars were not uncommon.

"There can now be found in Northern Illinois as good sheep as are to be found in Vermont. In fact, the celebrated sheep that carried off the great prize at the Hamburg fair last year, have been outdone in yield of wool by sheep owned by Mr. Kelley,—who has just sheared a part of his flock, intending to take them to the great exhibition in Ohio in September next, the rules requiring that they should be sheared on the 3d day of May. The sheep are those that were shown at the Illinois State Fair, at Decatur, last fall, and received the first prizes as best pen of ewe lambs, best pen of yearling ewes, and best pen old ewes, and sweepstakes of nine ewes and one buck; the buck being a lamb of 13 months old."

WHEN TO CUT WHEAT.—A club of ten farmers in Chester county, Pennsylvania, made experiments in cutting wheat. Their conclusion was that the best time to cut wheat was "when the grain can be pressed between the thumb and finger, and leave nothing but the husk and a thick pulp, without any fluid around its edges." The reason and the rule are thus stated by a Gettysburg farmer in the *Germantown Telegraph*:

Wheat is composed of gluten, starch and bran. Gluten is the nourishing quality of the grain, makes the flour stick together in the hands of the baker, and gives weight to the grain—and there is the *greatest* quantity of gluten in the grain just when the straw is yellow two or three joints from the ground, the head turns downward, and you can squeeze a grain between your fingers without getting any milk from it. Every day the wheat stands after this tinge of its ripeness, the gluten decreases in quantity and the bran increases in thickness.

NEW CODE OF MAINE LAWS.—By a law of this State any person who shall, to the acceptance of the Selectmen, place a trough by the roadside, into which a stream of water shall be constantly kept running, is entitled to an annual deduction of $3 from the amount of his yearly taxes. And by another law, towns and cities are authorized to give bounties to farmers and other citizens who shall plant out and protect shade trees by the road-side.

DEATH OF DISTINGUISHED AGRICULTURISTS.

Within a few weeks past several men, whose names have long been familiar to the readers of agricutural papers, have departed this life.

BRIG. GEN. JAMES S. WADSWORTH fell at the head of his division May 6th. He was President of the New York State Agricultural Society in 1842 and 1843. Was a man of great wealth and equal benevolence. Lived on one of the most beautiful farms on the Genesee River.

DR. EVA PUGH, President of the Pennsylvania Agricultural College, has also been taken from us. Like many other distinguished scientific men, he was from the humbler walks of life—having been originally a blacksmith. He devoted all his spare time and earnings to the improvement of his mind. He was at length enabled to go to Europe to complete his chemical studies. After he had spent some time in several of the most celebrated laboratories on the Continent, he spent two years with Mr. Lawes on his experimental farm at Rothamsted, engaged in investigations in regard to the absorption of atmospheric nitrogen by plants. Returning to this country he was elected President of the Agricultural College of his native State, and soon gave it a character possessed by no similar institution in this country. He was a man of unbounded energy and perseverance, and thoroughly acquainted with the science and practice of agriculture. His loss is irreparable.

CHARLES B. CALVERT, President of the Maryland Agricultural College, died at his residence, at Riversdale, May 12th. He was a large and successful farmer, prominent in every agricultural improvement, and his loss will be severely felt, not only in his own State, but throughout the whole country.

REV. C. E. GOODRICH, of Utica, N. Y., well known for his experiments on potatoes, and for the number of excellent seedlings he has produced, died at Utica, May 11th, aged 62 years.

TENANT FARMING.—The ambition of the American farmer is to own the land he cultivates. He scorns the position of tenant, and if obliged to rent a farm for a few years, seldom thinks of making any considerable outlay for improvements, especially for those of a permanent character. In England, where long leases are taken, large sums are expended by the tenant for such purposes. An instance of very liberal improvements made by a tenant is mentioned by a late Scotch paper in an obituary notice of Thomas Logan, of Woodend:

Mr. Logan entered on a new lease of the farm, formerly leased by his father, at Whitsunday, 1859. During the first year he limed 700 acres at a total cost of £3500; in the same year he drained 600 acres, the drains 3 feet deep and 30 feet apart, at a cost of £2520.

☞ Coal oil dropped upon the nests of caterpillars when the "varmints" are inside is said to be a safe, sure, and speedy means of accomplishing their destruction.

MULTIPLICITY OF PLANTS.

The number of plants now known and regularly classified, amounts to several hundred thousand. The Linnæan enumerates twenty-four classes, one hundred and twenty orders, two thousand genera, and thirty thousand species.

Of these species, the varieties are almost innumerable. The arrangement of LINNÆUS is very ingenious, and serves greatly to facilitate the acquisition of botanical knowledge by its clearness, and the ease with which it enables one to discriminate between plants so nearly assimilated in appearances as to demand no inconsiderable degree of research to avoid confusion.

Of these plants, there are a great many which administer directly to the wants, comfort and happiness of man, by affording healthy food, wood for building and other artistic purposes, as well as for medicine, and a great variety of other things.

"There is nothing in nature," says an ingenious author, "without its use in the animal or vegetable kingdom. Of plants, some give out in the sunshine, vital air, called by chemists, oxygen gas. This he imbibes into his blood through the medium of his lungs, in breathing, and without which we could not live. Some afford substance to the silkworm which spins for him those elegant garments so much worn and admired. Some plants are used for feeding and fattening his cattle. In short, without vegetables there would be no animals, and man himself would only catch a glimpse of life, and then miserably perish with hunger."

What, however, should more particularly arrest our attention, is the almost endless variety of vegetables, possessing such a varying degree of taste and of nutritious and medicinal matter. They seem, indeed, to be adapted to all the wants of man and animals. In sickness and in health, for the strong and the weak, some one may be found to suit every case. We know a physician, for instance, of extensive practice, who rarely uses anything as an alterative but apples. If he is sleepless, and is slightly feverish, he rises and eats a crisp and juicy apple, and finds it more effective than any narcotic. This remedy would be quite likely to throw another into convulsions, who would be relieved by a dose of hellebore or the juice of the poppy! Another person afflicted with a painful disease finds relief from the free use of pears, and another from grapes. Where the kidneys are affected, the patient is often relieved by eating freely of ripe peaches, the prussic acid which they contain being properly administered in this mild form.

Then, how wonderfully they are adapted to the varying seasons. By the time the snow is fairly gone, some plants push forth their tender leaves with rapidity, so that in a few days the table may be supplied with fresh and healthful "greens" of various kinds. Then succeed the delicious small fruits, ripening in succession until delicious pears and apples are waiting to be gathered.

There is no other country, we believe, where there is such a variety of eatable vegetables, and such an abundance of them, as we have here,—certainly, the markets of England do not afford them.

MILK, BUTTER AND CHEESE.

MR. BROWN:—Having had some dispute in regard to milk, we agree to leave the decision to your valuable paper. As to qualities for butter and cheese in proportion to its weight; also, which will make the most butter, the lightest or heaviest? Please discuss the matter generally, and oblige H.

Templeton, July, 1864.

REMARKS.—It would afford us pleasure to make this controverted question clear to our Templeton friends,—but when *they* disagree—the practical "doctors" in the case—men and women of great experience in all matters that relate to the dairy, we may well approach it with diffidence and distrust. We have had, however, considerable experience in the dairy room, and with the light which that affords, together with the opinions of good dairy women, and what we can find that is reliable in the records of others, we will present a few paragraphs for consideration.

The question propounded seems to be as follows:

Which will make the most butter or the most cheese, the *lightest* milk, or the *heaviest* milk?

The specific gravity of milk is 1.032—that is, one, and thirty-two thousandths parts, while pure water, which is the standard, is 1.000; milk, therefore, is the heaviest by the difference in these two sums.

Several years ago, when the adulteration of milk in the Boston market had become so notorious and intolerable that the Legislature took the matter in hand, many experiments were made by different persons to ascertain the various degrees of adulteration. In these trials, new milk, that was known to be pure, was used in nearly all the cases, and with the surprising result, that the specific gravity of all new milk is nearly alike,—the extreme variation being only *one ounce* in a wine gallon!

This certainly is a remarkable result, when we take into consideration the fact that the milk of different cows has a wide range of *quality*,—the cream varying from *five* or *six* per cent. in one cow to *eighteen* or *twenty* per cent. in another! We have owned two cows, each of which gave a large flow of milk, for several months after calving, but from neither of them could six pounds of butter per week be obtained from their milk.

They invariably brought large calves, however, which grew and fattened with remarkable rapidity. This is undoubtedly owing to the abundance of *caseine*, or cheesy matter, which yields the materials of the growing muscles and of the organic part of the bones; while along with the curd and dissolved in the liquid milk is the phosphate of lime, of which the earthy part of the bones is to be built up. A grade Ayrshire, standing by the side of one of the above, not yielding much more than half as much milk, would give nine or ten pounds of excellent butter per week.

With these facts before us, our Templeton friends will see how difficult it must be to give a satisfactory solution to their inquiry.

In his excellent work on "Milch Cows and Dairy Farming," Mr. Flint says: "Milk is exceedingly sensitive to numerous influences, many of which are not well understood. It is probably true that the milk of each of the divisions of the udder differs to some extent from that of the others in the same animal; and it is well known that *the milk of different cows, fed on the same food, has marked differences* in quality and composition. But food, no doubt, has a more powerful and immediate effect than any thing else, as it goes directly to supply all the secretions of the body. Feeding exclusively on dry food, for instance, produces a thicker, more buttery and cheesy milk, though less abundant in quantity, than feeding on moist and succulent food."

It is quite clear, we think, that the quality of the milk, and consequently the proportions of its several constituents, vary with the breed of the cow, with the food on which it is supported, with the time that has elapsed since the period of calving, with its age, its state of health, and with the warmth of the weather,—as in warm weather the milk contains more butter, but in cold weather more cheese and sugar. In all cases, the milk contains the same substances, though in different quantities and proportions.

Let us see now what the influence is, of BREED, CONSTITUTION, FOOD, SOIL, &c., on the *quantity* and *quality* of the milk.

Both the quantity and the quality of the milk are affected by a great variety of circumstances. Every dairy farmer knows that his cows give more milk at one season of the year than at another, and that the quality of the milk also—its richness in butter or in cheese—depends, among other conditions, upon the kind of food with which his cows are fed.

1. *The quantity and quality of the milk are affected by the breed.*—Small breeds generally give less milk, but of a richer quality. Good ordinary cows in this country yield an average produce of from 8 to 12 quarts a day. Thus the dairy cows of

Devonshire give	12 quarts a day,
Lancashire	8 to 9 quarts a day,
Cheshire and Ayrshire	8 quarts a day,

during ten months of the year; but crossed breeds are, in many districts, found more productive of milk than the pure stock of any of the native races.

The influence of breed both on the quantity and quality of the milk appears from the following comparative produce of milk and butter of one cow of each of four different breeds, in the height of the season, and when fed on the same pasture. The

	Milk.	*Butter.*
Holderness gave	29 quarts	and 38½ oz.
Alderney	19 "	25 "
Devon	17 "	23 "
Ayrshire	20 "	34 "

Not only was the quantity of milk very different in the four cows, but the produce of butter also—the Holderness, in the quantity both of milk and of butter, being greatly superior to all the other breeds.

The milk of the Holderness and of the Alderney breeds was equally *rich* in butter, as was the case also with that of the Devon and the Ayrshire, since one pound of butter was yielded by

12	quarts of milk from the Holderness cow,
2	" " " Alderney cow,
9¾	" " " Devon cow,
9½	" " " Ayrshire cow.

Some stocks of Jersey cows produce one pound of butter from eight and one-fourth quarts of new milk, the year round, and at the same time consume less food than others.

The butter of the milk is often in great part derived directly from the fat of the food. Hence the value of food which, like Indian corn and linseed cake, is rich in oil. Hence, also, those animals which lay the smallest proportion of this fat upon their own bodies will be likely to give the largest proportion in their milk. Thus the Ayrshires and Alderneys, which are good milkers are *narrow* across the shoulders, and *wiry and muscular* about the flanks. They give a rich milk, but rarely fatten well. The *short-horns*, on the contrary, are celebrated for their fattening tendency. They deposit more of the fat under their skin, and impart less of it to their milk. In both breeds, however, there are striking exceptions, because—

2. *The individual form and constitution of the cow* causes both the yield and the richness to vary much among animals of the same breed. Every dairy farmer knows that some Ayrshire, or Holderness, or Devon cows are better milkers than others. And even when they yield nearly the same quantity of milk, the richness or produce in butter may be very unlike. Thus, four cows of the Ayrshire breed, fed on the same pasture, gave in the same week—the

	Milk.	*Butter.*
First	84 quarts	which yielded 3½ lbs.
Second and third, each	86 "	" 5½ "
Fourth	88 "	" 7 "

so that the fourth, though it produced only four quarts more milk, gave twice as much butter as the first.

The tendency to yield butter, is, no doubt, constitutional, like the tendency to lay on fat.

3. The *kind of food* also exercises, as all cow-feeders know, much influence upon the quantity and upon the richness of the milk.

If the food contain little fat, the animal still produces butter. Is has the power of changing the starch and sugar of its food into fat during the process of digestion. It even robs its own

body of fat, becomes leaner, and thus yields more fat in the form of butter than it has eaten in its food. Where only part of a dairy of cows is kept for their butter, and the rest for cheese, the butter-milk from the former may be given to the latter, and thus the produce of cheese increased. In the State of New York, cows are said to yield one hundred pounds more cheese in a year when the whey from their own milk is added to their daily food.

4. *The nature of the soil*, also, in which plants grow, and the manure by which they are raised, affects their influence upon the milk. It has been known from the most remote times, that when fed upon one pasture the cow will yield more butter, upon another more cheese. This difference must depend upon the soil.

5. The milk is affected also by *a variety of other circumstances.* Its quantity depends very much upon the distance from the time of calving.

The quality of the milk is better from cows that are in good condition and have already been two or three times in calf—it is richer in warm climates, in dry seasons, and when the cow is not too frequently milked. It is said to be richer when cows are kept constantly in the house and regularly fed—those which go at large in the pasture yielding more cheese. When a cow is allowed to go dry for two or three months before calving, it is believed to give more milk the following season. In autumn it is richer upon the whole, giving a less proportion of butter, but a greater of cheese (AITON) while it becomes poorer in both when the cow is in calf. The first milk which comes from the udder is also poorer than that which is last drawn, the *strippings or strokings*—and, lastly, the quality of the milk is very much affected by the treatment and moral state of the animal. Gentle treatment and a state of repose are favorable to the richness of the milk; while anything that frets, irritates or harasses the animal, injures its quality.

Lassaigne obtained some curious results on observing the composition of the milk of a cow, which he examined at ten different periods, four of these before and six after parturition. The milk examined during the first three of the former periods, namely, 42 days, 32 days, and 21 days *before* parturition, contained no casein at all, but in place of it albumen; and no sugar of milk and no lactic acid, but a sensible quantity of uncombined soda. The milk examined eleven days before and just after parturition, contained both albumen and casein; while milk eleven days before parturition, and always after it, contained free lactic acid and sugar of milk, but no free soda. The milks examined 4 days, 6 days, 20 days, 21 days, and 30 days *after* parturition, contained casein and no albumen. It would appear from these observations that the milk of the cow is at first very similar to the serum of blood; and that the casein, sugar of milk, and lactic acid, to which it owes much of its distinguishing characteristics, begin first to make their appearance in it about eleven days before parturition.

We are aware that in this discussion we have not answered the question put, and we think those who have followed us thus far, have come to the conclusion that it is just as difficult to answer as it is to tell why one plant produces red fruit and another yellow, or why one apple tree bears sweet apples and another sour.

The truth is, that life, in its action, devolopes results that are entirely beyond any human power to trace out. This diversity in the products of the cow is not more strange than is sometimes observed in the growth and quality of plants. It is pleasant and instructive to inquire, because such inquiry leads us to many interesting particulars perhaps unknown before, and brings the mind to act upon a special and highly important topic.

We shall be glad to hear from some of our correspondents, on a subject of so much consequence to all.

For the New England Farmer.

SHEEP HUSBANDRY---No. 7.

In populous districts it will be found more advantageous to raise the long or worsted wools than clothing or shorter wools, on account of the market for mutton and lambs. And it would be particularly profitable for farmers in this section of the country to raise the former class of wool, having a market so near at hand, where they have found a ready sale for the last twenty years, and where the consumption of long and middle wools has been increasing, and in all probability will continue to increase for some time to come; and we may reasonably suppose that enterprising capitalists will not leave their capital unemployed under the present high tariff, high rate of exchange, and particularly the present price of cotton, which, let there be peace or war, must rule high for some years to come—not less, certainly, than twenty-five cents per pound.

Upon the introduction of cotton warps into the manufacture of worsted goods the English farmer thought it would seriously affect the price of long wools, but the cheapening the manufactured article so increased the demand for that class of goods, that notwithstanding the introduction of cotton warps in the place of worsted ones, and the introduction of alpacca for filling, yet so great was the demand for half cotton and half worsted goods that the demand for long wools increased.

And in 1844, in the vicinity of Bradford, England, the great centre of the worsted manufacture, there was scarcely a loom to be found weaving worsted warps. In the vicinity of Halifax a few mills were employed making lastings, a class of worsted goods which require worsted warps, and there is no reason in the world why this article—the material of which our wives' and daughters' boots and shoes are made, and many of our vests and summer coats—should not be made in a country which in all probability exceeds every other country in the world in its consumption. But in order to do this, we must have the material either produced at home or brought from abroad; but the importation of the raw material would no more benefit the country than the importation of the manufactured article. The production of the raw material is with the farmer; which we have endeavored to show in former articles can be produced at remunerative prices. We would call the attention of our readers to the fact that bunting, of which all our flags are made, is imported; glory as we may in the stars and stripes, we must

bear in mind that they are produced in foreign lands. Bunting is all worsted and requires a strong thread, in order that the article may be light. The warp must also be worsted, for the hard twisted filling would cut a cotton warp and render it unfit for the breeze.

To produce worsted warps it will require a better class of wool in some respects than the farmers in this section of country have been accustomed to produce to any great extent. There are some fleeces produced that are good warp wool, but the great bulk is only fit for worsted filling, and some so short that it is only fit for woolen goods.

But in order that the farmers may operate intelligently in the production of the class of wool required for this purpose, it may be well to give them a few leading ideas of the character of the wool required, and some reasons why it is required; and also state that that wool which is best adapted to make worsted warps will also make the best filling. Therefore, should worsted warps never be made, the farmer would have the satisfaction in knowing that he was producing wool best adapted for worsted filling.

The kind of wool required for worsted is that which will make the smallest and strongest thread with the least nap, and the smallest amount of stock, and this can only be accomplished by combing the long stapled wool.

Combing has two objects to accomplish—the removal of the noil, which is the short fibres at the bottom and the hard ends at the top of the staple; it also lays the fibre straight by taking out the curl to a great extent. This is done by the warm comb while the wool is moist. Wool is the same in character as horn or hoof, warm them and they are easily worked. The wool is worked with a warm comb, and by repeatedly passing through the wool while warm, the curl is taken out, causing the fibre to measure one-third longer after being combed than it did before.

The wool best adapted for making worsted warps is that sheared from yearling wethers. This is what is called, in England, hog wool; but when only a limited supply of this can be obtained, then wether wool is used, that is, wool sheared from wethers two years old and upwards. The first fleece of an ewe is as good as that of a wether, provided she has no lamb,—if she has, her condition is likely to be impaired, which weakens the wool, causing it to break easily, making more noils, which are of less value than the long, and by shortening the fibre unfits it in a great measure for warp, and makes it less valuable for any other purpose. Wethers being always kept in an improving condition their wool has strong, good bottomed staples; but if from scarcity of food, or want of proper care, or by disease, at that particular time when the wool is growing, there will be a weak place in the staple, and should the difficulty be serious the staple will scarcely hold together. Hence ewes' wool is never so good for any purpose as wethers'. Their condition is always variable, and their wool will be as variable as their condition; consequently a young ewe, having lambs before she has arrived at maturity, cannot have a good fleece of wool, and no ewe can be drawn heavily upon by lambs without its wool being poorer, therefore a moderate supply of lambs will be made up to the farmer by a larger quantity and better quality of wool.

Wool grows from a soft pulp included in a little sack underneath the true skin, through which it passes in the form of a cylinder, consequently whatever tends to diminish the supply of pulp, robs the fibre of nourishment, and checks its growth. You cannot have both pulp and milk, and old age furnishes it very sparingly.

The fibres of wool have externally a scaly texture, the scales pointing from root to tip. These scales form a sort of fine points or serrations, which, when wrought into cloth, lock themselves together, producing by this means a much stronger thread than if smooth. These scales are smallest and most numerous, and the serrations finest pointed, in the finest wool, therefore broadcloth made from the finest wool is stoutest if not too much reduced in stock. But in worsted, where the strength of the thread depends in some measure upon the length of the splice, the longer the fibre the stronger the thread; yet the strength is increased, if, in proportion to the length of the fibre, we have a proportionate number of secretions, and the scales being shortest in young sheep's wool, the secretions will be most numerous and finest pointed, and will produce the strongest thread. Older the sheep the longer and more blunted the points of the scales and fewer the serrations, and these less capable of cohering to others, cannot produce as strong a thread as young wool. On this account old sheep's wool is frequently styled slippery-haired,—a proper appellation,—it will not hang together well in worsted. A firm piece of broadcloth cannot be made from it. The farmer will now easily understand why young sheep's wool is so much more desirable than wool from old sheep, and if he desires good cloth he must produce a good material to make it from. He is interested in the production of good cloth, but he cannot have it unless he produces good stock; the production of the material is his part, the working of it the manufacturer's.

The farmer should bear in mind that pastures abounding in burrs waste a great amount of wool, and unfits it for worsted; if these are cast out with shears half the staple is cut away, the part cut off is but of small value, and the part left is not fit for worsted, and of little value for woolens. If the briars are taken out with a machine, the staple is broken by the process, and its quality seriously impaired; this, too, unfits it for worsted. Marking the sheep with tar or pitch wastes a great amount of wool—this must be cut off with shears, which destroys about half the staple and seriously impairs the value of the other half.

Sheep, allowed to run amongst the bushes, will have the back of the neck, between the shoulders, and sometimes along the back filled with leaves, seeds and little sticks; this injures the wool for any purpose, but entirely unfits it for worsted. And a careless manner of feeding sheep in winter with hay, fills the neck and back with the seed; this also impairs the wool very much, as it is almost impossible to remove it, and also unfits it for worsted. Sheep ought always to be fed in racks which will not allow them to shake the hay over their backs—a hopper-shaped rack is the best—not of so blunt an angle as to prevent the hay from falling into the trough, but projecting sufficiently to protect the back and the neck. The slats should not be more than eight inches—these should be perpendicular—and the hopper above

should be of boards. Chaff, when allowed to get among the wool, is worse than hay seed, and greatly impairs the value. We hope to live to see the day when the farmer will learn that it is his benefit to bring his wool as clean to market as any other of his farm produce. TYRO.

For the New England Farmer.

FARMING THE COUNTRY'S MAIN STAY —"ECONOMY EVERYTHING."

MR. EDITOR:—The old adage, "facts are stubborn things," holds as good as ever. How many times has the question been put, is farming profitable? Let facts decide without regard to the cost of producing a bushel of corn, but take the business as a whole. We can run the expense of carrying on a farm to any amount above the income, where economy is wanting, but that don't prove that farming is a bad business. The facts are, that prosperity at farming depends, like all other business, wholly upon the manner in which the business is conducted. If the farmer, like many men in other occupations, must smoke expensive cigars, drink the "best of liquors," with other corresponding requisites, he would soon be admonished that he had mistaken his calling. Now what makes the difference between the farming population and inhabitants of villages? It is coerced economy: the farmer and the villager have naturally the same propensities, the farmer's capital is land; his income is tardy, his money comes in small sums at uncertain times, he dreads infringing upon his capital and that is what saves him. On the other hand, the villager's capital is his trade, which directly produces him cash, instead of a crop for the market.

It is frequently the case that those who earn the most are the greatest delinquents, and most apt to wrong their creditors. Those who receive the highest wages, as well as those who receive salaries, are as apt to fall short as those who receive but moderate pay; they commence upon a higher grade of living and, to carry it out, are often under greater perplexity than those who make less pretensions.

A few years ago I was conversing with a very respectable and worthy clergyman, whose salary now would be considered very small. Among other talk, I remarked that we had to pay some regard to economy to steer through the world like honest men, and not disgrace ourselves by paying our honest debts by the laws of chancery. He replied with *emphasis*, "economy is everything." That clergyman's note at that time was good for $10,000. That is the true idea; economy is what sustains the farming interest. If farmers were to drink expensive liquors and smoke Havanas daily, and follow other fashionable habits which are indulged in by respectable merchants and receivers of salaries, how long would it take the farmer to cancel a mortgage? The industrious, economical farmer has the advantage of laboring men in manufacturing villages in many respects. Every farm has some kind of a tenement attached to it which answers to shelter the occupant, which is rented or sold with the land and draws no extra pay as rent; then the little trifling things that grow about every farmer's buildings, of the vegetable kind, including cultivated and fruits of spontaneous growth, which if purchased, take off the small paper, and if not, must dispense with some of the greatest luxuries of the season—the berry pies.

We can make no rational estimate of the income of the farm from the cost of any one or two individual articles of produce, from a year or two in experimenting, but we must be governed by the product of the farm as a whole. At the year's end, if the farmer finds himself as well, or better off than when he began the year, he may consider himself more fortunate than the average of the working world. The proprietor of a small farm of 80 or 100 acres of good land, is the best off, if he would be contented. Large farming establishments require a high degree of skill, good calculation, economy and unceasing care in the manager, or errors may happen to defeat his expectations, and the business prove a failure.

That blight and curse to all comfort, the unbounded desire to get rich, seizes the farmer occasionally to the annihilation of all tranquility and rest, in doors and out. Hurry and confusion pervade the whole premises, and reign supreme; the women are unmercifully burdened to perform their share in the enterprise; the sons, under continued pressure, get tired, and a growing hatred to the business drives them from home, perhaps to their ruin; and so it goes on till sickness from exhaustion enters the premises and the deluded farmer, when too late, *feels* the effects of his folly, if he does not see it, by the loss of his wife and desertion of his sons—himself an old, suffering, broken-down man before he is aware of it, and compelled to die before he gets the last purchase paid for. "What does it profit a man if he gain the whole world and lose his own life" in the attempt? I have been an eye-witness to a like tragedy. Not so with the rational, contented farmer. His sons and daughters love home and leave it with reluctance, and as many of them as can be accommodated stay there.

I have spent some of the happiest hours of my life with such families. Ignorance is not a necessary element in the constitution of a farmer. A clown may enlist in the calling as well as into other business. Well educated farmers are multiplying, and our instructive agricultural newspapers will prove a continued school of progress in teaching the art of agricultural science as well as improving minds in physical and moral subjects. Money cannot be expended for paper in any shape to better advantage than for our agricultural papers; they are not party bigots, but inculcate good, practical Christianity, which is useful to everybody. Undoubtedly there are individuals among merchants and speculators who are richer than farmers, in estimated property; but when fluctuations take place in consequence of embargoes, blockades and wars, which, God forbid, as in 1808 to 1815, there comes a change; land now in Boston worth from one to ten or more dollars a foot, was an unsaleable drug, while in the country, farms sustained their prices and were more in demand as the war held on. A landholder in the city worth a million to-day, under similar causes, if obliged to sell, may find himself a very poor man to-morrow. Farms in the country are a matter-of-fact property, while land in the city has a temporary, fictitious value, regulated and governed by business operations. In conclusion, the incontrovertible evidence that farming is the "main stay of the country," is that every other

kind of business is dependent upon it. If my statements above are incorrect it would give me great pleasure for some of your correspondents, better informed than myself, to point out my errors. SILAS BROWN.

North Wilmington, June, 1864.

For the New England Farmer.

THE SEASON AND CROPS IN VERMONT.

How cheering and refreshing to the parched earth is the rain, now gently falling, which has so long delayed its coming! Our wet spring has bsen followed by an unprecedented drought, commencing with the month of June, though there had been but a trifle of rain for some time before the first of the month. We had a slight shower the ninth day, when the wind suddenly shifted to the north, and the next day the snow-flakes flew among the green hills of Vermont in high style. The thermometer stood at 46° all day; the clouds and wind kept off frost that night, but the next morning, Sunday, the 12th, the thermometer was found standing at 30°, giving us a hard freeze in the valley, killing early potatoes level with the ground, and entirely spoiling some fields of corn and beans. I think the corn that was killed was not planted so deep as it should have been. Some of our best fields are now large enough to hoe the second time, and give promise of a crop yet if we have a favorable season till October. From the 12th, the thermometer rose gradually to 90° in the shade, and in some villages in the valley several degrees higher, scorching the grass on gravelly and sandy lands till it would burn like dry stubble, as was proved by fires catching from engines passing by the fields. But the rain is again falling, and we may yet have an average crop on most of our lands, if the summer should be wet.

Could some of your readers inform me, either by letter or through the *Farmer*, where a yearling heifer and bull of the Jersey breed could be produced. I don't know that there is any of that breed in this vicinity, but I lately purchased a little quiet red and white cow that had her last calf the first day of last December, and the 28th day of May the milk she gave made a pound and fourteen ounces of butter, and she had no other feed than she got in a very *good* sheep pasture. I don't know what breed she is, but am satisfied that she is a very good cow. W. I. SIMONDS.

Roxbery, Vt., July 2, 1864.

For the New England Farmer.

LEADING ANIMALS.

The horse, cow, calves and sheep may be easily led by making a slipping noose and fastening it to the lower jaw, passing the rope (which must be small) around the neck and through the noose on the jaw. It is a very easy way of leading a sheep, not being obliged to go behind and "push." After once pulling, the sheep will follow right along with no trouble. It costs nothing extra. Try it.

DICKSON.

REMARKS.—We have no doubt but this would be effectual. It is the contrivance which Mr. Rockwell uses in managing a vicious horse. In leading a bull, never trust to his good nature. Bulls are unreliable animals. They can be led, but often take a fancy to "push with their horns" in a most uncomfortable manner. Always, therefore, have a stick as strong as a good hoe handle between yourself and the bull, and fixed in such a manner as to poke the sharp end of it through the rascal's skin if he undertakes to poke you. Never trust a bull. Make it a rule and you may escape getting terribly gored. Frightful occurrences by them are not uncommon.

PLANTING CABBAGES.

A correspondent of the *Mark Lane Express*, who highly extols the cabbage for feeding milch cows, store cattle, sheep and swine, and more especially for spring-feeding of lambing ewes, says that the average product per acre in England may be stated at 25 tons. He gives the following directions for planting them:

The cabbage plants freshly drawn from the nursery-bed, with the extreme end of the slender fibrous root cut off, are brought to the field, and immersed in tubs of water, with the roots downwards, and taken from the vessels as the plants are required for use. Persons provided with dibbles insert the plants on the top of the drills, at the distance of two feet from each other, making a hole with the dibble for the insertion of the plant to the depth it has stood in the nursery-bed, and pushing with the dibble the sides of the hole together, in order to give the plant a firm position. It must be very carefully observed not to insert the plant deeper or more shallow than they stood in the nursery-bed, as a transformation of the exposed or earthed up skin is the consequence, and a necessary delay in the onward progress of the plant. All plants with a large foliage require much moisture, and the dung that is used for cabbage must be thoroughly moist, and even wet, whether it be cool or fermented; the plants immersed in water, and the insertion in the ground should be performed in the wettest weather in which the work is possible to be done. When any plants are seen to be dead, the places must be immediately filled with fresh plants in order to secure a full crop all over the field.

THE WESTERN GRAIN CROPS.—A gentleman having an extensive telegraphic correspondence with the Western grain markets speaks of the crop prospects of the present season as very fair, taking the country as a whole, notwithstanding the prevalence of drought in many parts. Recent rains have done incalculable good, though not as abundant or general as might have been desired. In Southern Ohio the harvest will soon be ready for gathering, and the crop is spoken of by Cincinnati papers as a good one. Corn and oats still need rain, but promise an average yield. Western agriculturists, as a class, are represented as exceedingly comfortable in regard to money, as the high prices of grain have induced them to send forward their old crops, exchanging them for cash, and paying off incumbrances. Farm mortgages, so much desired for investment, are not to be had. —*N. Y. Journal of Commerce.*

SCOURING KNIVES.—A subscriber to the *American Agriculturist* writes that the ashes of hard coal unmixed with any from wood, are a better article than Bath brick for scouring knives, forks, etc.

WHY BEES WORK IN THE DARK.

A lifetime might be spent in investigating the mysteries hidden in a bee-hive, and still half of the secrets would be undiscovered. The formation of the cell has long been a celebrated problem for the mathematician, whilst the changes which the honey undergoes offer at least an equal interest to the chemist. Every one knows what honey fresh from the comb is like. It is a clear yellow syrup, without a trace of solid sugar in it. Upon straining, however, it gradually assumes a crystalline appearance—it *candies*, as the saying is, and ultimately becomes a solid lump of sugar. It has not been suspected that this change was due to a photographic action; that the same agent which alters the molecular arrangement of the iodine of silver on the excited collodion plate, and determines the formation of camphor and iodine crystals in a bottle causes the syrupy honey to assume a crystalline form. This, however, is the case. M. Scheibler has enclosed honey in stoppered flasks, some of which he has kept in perfect darkness, whilst others have been exposed to the light. The invariable results have been that the sunned portion rapidly crystallizes, whilst that kept in the dark has remained perfectly liquid. We now see why bees are so careful to work in perfect darkness, and why they are so careful to obscure the glass windows which are sometimes placed in their hives. the existence of their young depends on the liquidity of the saccharine food presented to them, and if light were allowed access to this, the syrup would gradally acquire a more or less solid consistency; it would seal up the cells, and in all probability prove fatal to the inmates of the hive.—*"Chronicle of Optics," in the Quarterly Journal of Science.*

OLD-FASHIONED COMFORTS.

Our ancestors were a frugal, self-denying people, inured to hardships from the cradle; they were content to be almost without the luxuries of life, but they enjoyed some of its comforts, to which many of us are strangers (old-fashioned comforts, we may say); and among these the old fire-place, as it used to be termed, held no mean rank. How vividly the picture of one of those spacious kitchens of the olden time comes to our mind, with its plain furniture and sanded floor, innocent of paint, but as white as the neatest of housewives could make it! In one corner stood the clock, its very face wearing an aspect of good cheer, and seeming to smile benignantly upon a miniature moon over its head, which, tradition said, had, at a remote period, followed the rising and setting of its great prototype in the heavens, though its days of active service were long ago over.

But the crowning glory of that kitchen was not its white sanded floor; nor the high desk with its pigeon holes and secret drawers, which no venturesome youngster ever dared to invade; nor yet the old clock ticking so musically in the corner; but it was the old fashioned fire-place, with its blazing embers, huge back-logs, and iron fire-dogs, that shed glory over the whole room, gilded the plain and homely furniture with its light, and rendered the place a type of true New England in "ye olden times."

Never were there such apples as those which swung around and around upon strings before the bright fire of a winter's evening, never such baked potatoes as those buried deep in the ashes upon the hearth, never such cornstalks as those which caught golden hue from the blazing embers, or turkey like those turned upon a spit, filling the room with savory odors so suggestive of a dainty repast.

Before the fire was the wooden settle, and here the children were wont to sit in the long evening, telling stories, cracking nuts, conning their lessons for the morrow, or listening in silence to the words of wisdom that fell from the lips of their superiors, and anon gazing in silence into the bright fire, and conjuring up all sorts of grotesque fanciful images from among the burning coals. No fabled genii, with their magic lamps of enchantment, could build such gorgeous palaces, or create such gems as the child could discern amid the blazing embers of the old fashioned fire-place.

And we must not neglect the chimney corner, where sat our grandfather in his accustomed seat, his hair silvered with the snows of many winters—a venerable man, to whom old age had come "frostly but kindly," and whose last days were like those of an Indian summer, serene and beautiful, even till the stars appeared in heaven.

How pure was the air in those days! The huge fire-place, with its brisk draught, carried off the impurities of the atmosphere, and left the air pure, life-giving and healthful. Now, we crouch around hot cooking-stoves, and think it strange that we feel so stupid and drowsy of an evening; or we huddle about air-tight stoves, and wonder that the air seems burned and impure; or we sit down in chilly rooms heated by a furnace, and marvel that with all our costly furniture, soft carpets, bright mirrors and damask curtains, they are cheerless places—so unlike our ideas of a New England home.

Alas! that with all the so-called improvements of our advanced civilization, the fire should be permitted to go out forever in our old fashioned fire-places, thus burying in the ashes of the past so many means of health, home comfort, good cheer and happiness.—*Scientific American.*

THE PORTULACAS.

In looking over the horticultural publications of the day, there is so much said of new varieties of plants and flowers, often with high sounding names, that we greet with especial pleasure any notice of an old friend. In the June number of Hovey's magazine we find the following complimentary notice, by the editor, of portulacas in general and of a late improvement of this old favorite, in particular:

The portulaca, though one of the most common, is still one of the most showy and beautiful annuals, admirably adapted to our climate, growing freely and flowering abundantly under conditions of soil and treatment where many other flowers would scarcely make any display; the old orange and scarlet, when planted out in large patches, vie in brilliancy and decorative effect with the showiest verbenas.

For a long time there were but two or three shades of red and orange, but with the skill of cultivators they have been crossed and fertilized till we have nearly a dozen different sorts, some

scarlet, some crimson, some yellow, orange, white, &c., with a mixture of the two colors. These have hardly become well known before we have another improvement, obtained by the German florists, in double flowers, as double as the rose.

These double varieties are in fact charming objects, and may well claim a prominent place among the novel things of recent introduction. The flowers are perfectly double, about the size of a twenty-five cent piece, and a bed of them in full bloom presents a gay appearance, not unlike that of the beautiful ranunculuses, or the little Burgundy rose, so that the Germans call them "Portulaca roses."

The portulacas love a warm and rather light soil, and a dryish situation, to flower well. They need not be planted early, unless in a frame or hot-bed, as the seed will not grow freely till the ground is warm. About the middle of June the plants begin to appear in the open ground, and grow with great rapidity, soon covering a large bed, and making a dazzling display, with their many-hued flowers, from July to frost.

The double varieties, like all other double flowers, cannot be relied upon with certainty to produce all double flowers, but the larger part of them will be double, and the single sorts may be pulled up and thrown away or transplanted, unless it is desired to retain them in the same bed with the double kinds.

Indian Corn.—A correspondent of the *Prairie Farmer*, after a few remarks on the culture of corn, waxes eloquent, as follows, on the value of this grain:

With a nominal cost of seed, a range of two months for planting, it waits for the sick and the absent—may be harvested almost any time without expensive machinery, is almost indestructible, destroys worthless plants, gives about as much rough feed for all domestic animals, and is unequaled for fattening purposes. The buxom girls and stalwart sons of the West deem it the staff of life when made into bread, and when made into whiskey many think it life itself. It supports the poor man's family, the rich man's flask and the merchant's trade. It is the basis of an immense trade in beef, the main pillar of our national prosperity, the golden fleece of America, the staple of the West, the pride of Illinois. From its partial failure last season we more fully appreciate the inestimable value of this splendid gift of the Great Spirit to the Red Man, the jewel of our rich inheritance.

About Milking and Talking.—A correspondent asks: "Does it affect the quantity of milk a cow will give if conversation is carried on between milkers when milking?" We do not think there is any doubt about it—especially where the dairy is made up of young cows. We would not have a loud-talking milker in the stable. And it would be better without doubt, if conversation were entirely tabooed when milking. We remember some years ago, a dairyman asserted at a meeting of a farmers' club, that he had discharged a man because he would talk and interrupt the milking in his dairy, and that in three days the increase in milk was equal to the man's wages. Such are important facts, if established. —*Rural New Yorker.*

FIRE-FLIES.

'Tis June, and all the lowland swamps
Are rich with tufted reeds and ferns,
And filmy with the vap'rous damps
That rise when twilight's crimson burns;
And as the deepening dusk of night
Steals purpling up from vale to height,
The wanton fire-flies show their fitful light.

Soft gleams on clover-bloom they fling,
And glimmer in each shadowy dell,
Or downward, with a sudden swing,
Fall, as of old a Pleiad fell;
And on the fields bright gems they strow,
And up and down the meadow go,
And through the forest wander to and fro.

They store no hive, nor earthy cell,
They sip no honey from the rose;
By day unseen, unknown they dwell,
Nor aught of their rare gift disclose;
Yet, when the night upon the swamps
Calls out the murk and misty damps
They pierce the shadows with their shining lamps.

Now ye who in life's garish light,
Unseen, unknown, walk to and fro,
When Death shall bring a dreamless night,
May ye not find your lamps aglow?
God works, we know not why nor how,
And one day, lights, close hidden now,
May blaze like gems upon an angel's brow!

"The Round Table."

PURE WATER FOR STOCK.

A good draught of good water is, probably, as refreshing to beasts as it is to people. But in the month of August, nearly all domestic animals suffer for want of good water. Sheep will thrive far better if they can have access to pure water. Teams will endure the heat far better if they can have plenty of pure water; and if milk cows must drink stagnant water wherever they can find it, how is it possible for them to give their usual flow of good milk. It is impracticable for them to do this.

Some people allow water to stand in troughs, day after day, many times, and compel their animals to drink it all up. Did such people ever drink water from an old dirty slop pail, after it had been allowed to stand in the sunshine for two or three days? Let them try the experiment of drinking such water, and wait for the result; and then they will be prepared to express a correct opinion, whether or not such water is as good for stock, in the sultry days of August, as pure cold water would be.

Water troughs and water tanks should be cleaned frequently, during the hot days of August and fresh water pumped into them several times during the day.

Milk cows require a vast quantity of pure water in hot weather, in order to produce their usual flow of good milk.—*Country Gentleman.*

Stone Houses.—The writer of an essay on "Country Houses," printed in the Baltimore *Farmer*, concludes that, "As to the economy of stone, we believe, at the present prices of lumber, it is quite as cheap, if not actually cheaper than wood; and as to the comfort of houses built of stone, when compared with those constructed of wood, the odds are altogether in favor of the stone."

WHEAT---GOOD SEED.

I've seen the largest seeds, tho' rear'd with care
Degenerate, unless the industrious hand
Did yearly cull the largest. Thus all things
By fatal doom, grow worse, and by degrees,
Decay, forced back into their primevous state.
Virgil.

Too many of us are apt to think that we possess a sufficient amount of knowledge in the business we pursue, in and of ourselves, without reference to the almost infinite mass of mind around us, or that ceaseless research and activity that has existed before we came upon the stage of being, and which is now constantly affecting us.

It is true that great progress has been made in the art of cultivating the soil, and especially in regard to the labor-saving machinery and implements that have been introduced, and which have proved of the utmost efficiency. Improvements have also been made in many other directions,—in buildings, stock, &c., and in the introduction of new and valuable vegetables and fruits. There are several important rules, however, well understood by the ancients, and observed by some of them, at least, with scrupulous care, that are very generally disregarded by us. One of these is in regard to the selection of seed.

COLUMELLA, who wrote about the time of our Saviour, in some remarks upon the selecting of the best seeds to propagate from, says:

"I have this further direction to give, that when the cornes are cut down and brought into the threshing-floor, we should even then think of making provision of seed for the future seed-time; for this is what CELSUS says—where the corn and crop is but small, we must select the best ears, and of them lay up our seed separately by itself."

The method, however, most farmers practice in reference to this important matter is far less scientific and rational; they do not hesitate to purchase of any one having the reputation of being a "good farmer," any kind of seed he may chance to recommend or have on hand. In this way fatal mistakes are often made, and lands which have been prepared with patient industry, are stocked with seeds which are nearly worthless, and sure to disappoint the expectations of those who have expended much time and capital in procuring and planting them.

An able writer, who is also a practical farmer, says: "I am convinced that a proper selection of wheat is indispensable, my crops having almost doubled in produce since I have raised seed of a pure sort. Those intelligent and superior farmers who have already made great strides towards pure crops by a careful selection of seed, must not expect so great an increase. But even to those I hold out decided hopes of improvements by the means I recommend."

There are a great many varieties of wheat. Le Couteur's collections embraced one hundred and fifty distinct sorts. One ear of one of these varieties he sowed grain by grain and suffered the plants to tiller a part. The amount of produce exceeded four ounces! Indian corn, when care is exercised in selecting the best formed, but not always the largest ears, and those which are the earliest ripe, and continuing the practice for a succession of years, is found to be greatly improved, both as regards earliness of maturation and productiveness. The same remark applies with equal force to other vegetables—roots as well as grains.

Attention to this subject will result in great gain to all who are cultivating extensive crops.

COMSTOCK'S ROTARY SPADER.

Believing that hard work is the great objection to farming, especially in the mind of "Young America," we rejoice at every indication of the near approach of the good time coming when the drudgery of cultivation shall be performed in a great measure by machines instead of human hands. For many years an indefinite vision has floated in our brain of some machine to take the place of the simple plow, which has changed only inform from the primitive "crooked stick" of our antediluvian forefathers. Last year we copied from the Western papers a brief notice of experiments with the Rotary Spader. The universal scarcity of farm help throughout the country has increased the demand for machinery beyond all precedent, and it is used this year as never before. Hon. M. S. Sullivant, of Broadlands, Champaign Co., Ohio, has four of Comstock's Rotary Spaders on his extensive farm this season. With these machines he estimates the cost of preparing the soil and planting corn at fifty (50) cents per acre, allowing one dollar and a half per day for men and fifty cents per day for horses. In a communication to the *Rural New Yorker*, he says:

I commenced working one of them on the 19th of April, preparing ground for corn, and have worked it constantly since, when the ground was in condition for working. A few days later I started two more, and a fourth some days since; they have all been running constantly when it was not too wet. I am working two of them with four horses and one man each; the other two we work in a gang, with a team of six pairs of oxen, driven and managed by one man.

"These machines work three feet in width and eight inches deep, pulverizing the soil more thoroughly and preparing a better seed bed than I have been enabled to do with the plow and harrow. The horse machines do one acre each per hour, with a speed of two and three-quarter miles; the gang will do one acre per hour, with a speed of one and three-eighth miles.

"I expect, in a day or two, to have a machine the full width of a corn row, (three feet, eight inches,) at work, with a self-acting corn-planter attached. This machine will be capable of pre-

paring and planting the ground at the rate of one acre per hour, with a speed of two and a quarter miles; we think four horses, or six oxen, and one man, will work and manage it readily.

"As to my opinion of it, I have no hesitation in saying that I think it the greatest step forward that has been made in agricultural machinery. I believe they will supersede the plow on our prairies, and similar soils, and cause a great revolution in Agriculture."

In the *Prairie Farmer* we notice a statement by another farmer who has one in use, and who writes that one man and four horses spade about eight acres per day, if the weather is reasonably cool. He says:

"The Spader is the implement for me. It gives, what I have always desired, a depth of tilth that is not obtained with the plough at one operation. It also gives a quicker and better way to prepare the soil for the seed, enabling the farmer to do his work at the right time and in the right season."

Mr. Wicks, for that is the name of the writer, adds that his teamster "either walks or rides at his pleasure or convenience, and that with good improved tools and harnesses and horses farming is a real pleasure to any man."

THE SEASON---CROPS---DROUGHT.

Since the middle of June the weather has been, at times, excessively hot during the day, with succeeding cool nights. The thermometer, in the shade, has risen to 98° and 100°. In the midst of these tropical suns there has been but little rain for several weeks past, so that the grass crop has been hurried to a most rapid maturity. Haying was commenced in earnest during the last week in June, and more grass was probably cut than was ever known to be cut before during a similar period. On old lands the crop will be light, and the impression is quite common that the entire crop will fall short a full third of that of last year. Such, however, are not the conclusions to which we have arrived, after visiting various portions of this State and New Hampshire. We believe we shall have not only a full average crop, but that the fodder will be worth at least *twenty-five per cent.* more than it was last year. Many farmers have already, July 18th, got well nigh through with their English hay harvest, and are striking vigorously into their meadows. Scarcely a ton of hay has been wet so far, so that what has been housed is of the best quality, and will make milk and beef almost as rapidly as grain.

The drought now begins to pinch the barley crop pretty sharply, and the early potatoes feel it sensibly. Corn never looked better, nor have we ever seen finer fields of winter rye than are presented in every section we have visited. We have seen only a few fields of wheat, all of which were of an average quality. We must have rain soon or the second crop of grass will be light.

CLEANING GOVERNMENT BEANS.

We have several times spoken, in these columns, of the devices of one SANFORD ADAMS, of Boston, to separate good things from bad ones, so that each shall stand before the world upon its own merits,—where all ought to stand now, but where we shall be *obliged* to stand by-and-by.

It is said that *some* government contractors have few scruples as to what they bale and barrel and box and send to our brave soldiers in the field and our gallant sailors on the sea—but hide beneath the boards and staves, which enclose them, articles not contracted for, and entirely unfit as food or clothing. This shows a moral obliquity in some of our business men which is now a crime closely akin to disloyalty, and which it is not pleasant to expose. We wish all persons of this stripe were obliged to submit to such a verdict as Gen. Butler pronounced upon an unworthy son of Massachusetts, who allowed numerous casks of whiskey to be smuggled into Norfolk, Va., for a petty bribe of $750, viz: that he should be arrested, tried, convicted and sent to State Prison.

It is enough, certainly, for the government to sustain itself against its public and open enemies, —but it is still harder to protect itself against those in the guise of friends, and whom it is daily protecting at enormous cost and sacrifice.

Disloyal! Under such a mild and equal government, and in such a crisis! It is a crime which has scarcely yet found its way into the calender of crimes! It is treason, not only to one's government, but to one's family, against humanity and human liberty! Treason against God himself,—for treason, now, tends to deprive the children whom he has made of liberty and of life itself! And yet the government is robbed and wronged every day by scoundrels who wear meek faces and use honeyed words, who sit in high places and pass as "tolerably honest men." If we had the power of the "Grand Turk" for a single day, the "Dry Tortugas" would groan with the weight of lusty shovellers who should press its hot and heavy sands! We could, possibly, listen with patience to the apology of a Southern traitor, but with none to him or her reared amid Northern institutions and customs. If there are any "bolts of Heaven, red with uncommon wrath," ought they not to be hurled upon those who have enjoyed the protection and blessings of such a country and such a government as ours, and then, with traitorous spirit and acts, turned their heel upon them when everything is imperiled by wicked and open enemies?

We recently saw a portion of a lot of more than *three thousand bushels* of white beans, which had been contracted for by government agents, and *rejected* as bad by government inspectors. After remaining some time, and being greatly needed by

the army and navy, the agent brought Mr. Adams and his curious mill to his aid, and has rescued from the mass about three thousand bushels which are fit for the camp, dining cabin or king's table.

In the *debris* which was left were two barrels of broken bean pods, two barrels of a variety of small seeds, chaff and other refuse, sixty-four barrels of small beans, in perfect form but that did not get fully grown, and *six bushels of small stones!*

The complete separation of this huge mass was performed in twelve days with his mill and the services of one man and three small boys.

We wish his "Separator" could be set in motion and sift out every person with secession tendencies as thoroughly as he sifts the chaff from the wheat which passes under his care. Would it not be a singular and just judgment upon them to march in gangs "down South" with haltered necks,

"And *coffe's* weary chain!"

May God grant that they repent before this dreadful doom overtakes them.

For the New England Farmer.

CHICCORY AND COFFEE.

MESSRS. EDITORS: — In these trying times, when the price of coffee has gone up like a balloon, I have been thinking of the expediency of raising chiccory or succory or endive, (Chicorium Intybus) which is growing wild along all our roadsides, and is now in bloom and will be all summer, with bright blue showy flowers.

It goes under the same specific name (Intybus) as the French plant of whose roots a substitute for coffee is made. Can you or any of your readers tell me *with certainty* that it is exactly the same as the coffee plant, or if it is a *variety* of that, and not proper to make coffee of. In "*Le Bon Jardinier*," I find the following:

"Wild chiccory is very early and productive as a fodder, very good food for cattle, either in a green or dry state, and it resists drought well. It succeeds well either in strong or light soils, if they only have sufficient depth. It is usually sown broadcast in the spring, either by itself or with red clover, or barley or oats. It may be sown in September. When sown by itself, take about twelve pounds, Troy, to the acre. It lasts three or four years. The roots do not freeze, and may stand in the ground during the winter."

I wish some one who knows (not guesses) will tell me whether or no this plant by our roadsides will do as a substitute for coffee?

REMARKS.—Chiccory is a pest. It has got into our grounds by some means unknown to us, and defies all our efforts, thus far, to eradicate it. A plot of it has been dug up four or five times in a single season, and the next spring would show itself in full vigor again. It roots very deeply, bears a sharp drouth and all manner of trampling upon by man and beast. We dislike it, both in field and coffee-pot, and should rather drink the tea steeped from raspberry leaves than any decoction of chiccory. Arthur Young brought the seed from France in 1788, and grew the plant extensively on his own farm in England. He says:—"The root runs deep into the ground and is white, fleshy, and yields a milky juice. On the continent the dried root is roasted and used instead of coffee. The root contains a strong bitter which may be extracted by infusion."

"When the roots are used as a substitute for coffee, they should be first cleaned, then put into an oven after the bread has been taken out, and allowed to remain until cool. Should once baking be not sufficient, the process is to be repeated, after which mix with one-half of coffee."

We have no doubt that the plant which our correspondent describes is precisely that described by Arthur Young.

EXTRACTS AND REPLIES.

Difference between Good and Poor Farming.

I have seen this strikingly manifested in two farms that have come under my observation. One, the town farm in South Danvers, on which the poor are supported,—the other, the County farm in Topsfield, given to the Essex County Society, by the late Dr. Treadwell, of Salem.

On the one, *thirty tons* of prime English hay was cut upon *twenty* acres! On the other, less than half this amount. Originally, they were of soil equal in quality. One has, for years, been skinned by tenants, —the other has been dressed by liberal applications of manure made on the farm. Other crops in like proportions. Facts are stubborn things. P.

July, 1864.

A Good Clip.

I have 102 sheep, 50 of them are ¾ Atwood blood, one year old wethers; they sheared 8½ pounds, on an average. The other 52 are ¾ Atwood blood ewes, two years old last spring; they sheared 9½ pounds on an average.

The whole sheared 920 pounds, or a trifle over 9 pounds, to average the whole. I did not raise any lambs because I did not think my ewes old enough. My sheep were well washed about two weeks before shearing. I sheared the 30th day of June, 1864.

I would like to have some one beat this, and I will try again. A. D. NELSON.

North Haverhill, N. H., 1864.

For the New England Farmer.

ON BUTTER-MAKING.

MESSRS. EDITORS:—In the *Farmer* of July 2d, I noticed an article on *butter-making*, which does not exactly coincide with my sentiments, or at least, I differ from "Sarah" in some particulars, namely, she stated that their cow gave eight quarts of milk at night, and that she strained it in two pans. I should use three or four—prefer four if I had plenty of room and plenty of pens, as I think the cream would rise much sooner; milk ought not to stand more than thirty-six hours in very warm weather, before being skimmed, I think.

She also said she had no nice, cool place to keep milk; how can she make nice, sweet butter, as she says she does? I could not. She says she churns once a week. I think it is better to churn oftener, as the cream does not get so sour, and I think the butter is much better. I consider a "nice, cool place" to keep milk and cream indispensable in butter-making. I have a nice, cool milk-room, constructed on the principle of ice-houses, a space filled with sawdust, with double doors, double window, and an ice-box inside for

ice during the hottest weather. I can bring the temperature of the room to 58° or 60° by filling the ice-box, when the thermometer stands at 90° outside.

When my milk is brought to the house, I cool it during the hot weather, by putting it in tin pails and putting the pails in tubs of cold water, then strain in tin pans, 2½ or 3 quarts to a pan. My pans are so arranged that the air can circulate all around them. I let the milk stand 36 hours, then remove the cream, put it in a tin pail, being careful to keep the cream cool. I sprinkle a very little salt in the cream as I gather it. I skim milk morning and night, stirring my cream each time when I put cream in the pail. I have the temperature of my cream at the time of churning 58° or 60°, which I think is about right for warm weather. I churn twice a week, and use the "*N. E. Air Pressure Churn.*" I have two other patterns of churns, but I think, for all times, I prefer the air pressure, as it churns the butter more even, that is, all the cream comes to butter. When the cream is churned to butter, I remove the butter from the churn, work out the buttermilk, salt the butter, putting one ounce of salt to each pound. I let it stand twenty-four hours, then work over twice, with hands, working three or four pounds together first, and then each pound separately, so as to be sure and get all the buttermilk out. I then form it into pound lumps, and put into boxes for the market.

MARY T. TOWNSEND.

Marlboro', July, 1864.

For the New England Farmer.

BIRDS---CHERRIES---INSECTS.

FRIEND FARMER:—I write a few lines to tell you what I have observed in birds, as related to cheeries and insects, as follows:—Birds, of whatever kind, whether robin, cherry birds or what not, never wantonly destroy or feed upon cherries. I have for two seasons particularly examined their depredations, and have come to the following conclusion, viz: that birds never trouble fruit unless there is a worm in it; whenever they find such, (and God has given them instinct, reason, or whatever one chooses to call it, enough to enable them to seek and find their food,) they bore the fruit and secure the worm. I have gathered cherries which were perfectly fair and sound and found a worm inside. I have examined cherries which the birds have pecked, and have found inside a worn cavity larger than the hole which the bird made to get at it. Birds have free access to my trees—the insects do not destroy their foliage. The birds are so tame, that while I am gathering cherries they gather insects, and I could easily catch them (the birds) with my hand. I believe that the way to get rid of insects and bugs on fruit is to cherish the birds, treat them as friends, feed them, if necessary, to induce them to frequent our premises. One or two or three seasons of such a course may not wholly free our orchards from pestiferous insects, but I believe that a constant perseverance in encouraging the birds will in time effectually remove all obnoxious insects from our trees. There is no poison that will at one application rid our premises of bed bugs, yet all good housewives will tell you that by perseverance they can accomplish the end aimed at.

South Danvers, July, 1864. T. A. S.

For the New England Farmer.

SHEEP HUSBANDRY---No. 8.

In a former article we referred to an oily substance exuding from the skin of the sheep. One object designed by nature in furnishing this yolk appears to be to soften the scales on the exterior of the fiber. To this yolk the wool is indebted for much that makes it superior to hair, for it renders it softer, more pliable, and more readily worked than it otherwise would be. This yolk is plentifully supplied in young and well fed sheep, but in old and half-starved sheep it is scarcely perceptible, and their fleeces partake as much of the character of hair as of wool. For the want of it the scales are not so soft and the fibre not so pliable, and cloth made from such stock is harsh and tender; and science has failed thus far to discover an unction which can render that wool soft which has been left harsh by nature not supplying its own emollient.

The ancient Romans appear to have exhausted every known expedient to aid nature in producing a soft and delicate filament. They smeared it with fine oil moistened with wine; the fleece was combed while growing, that it might not become matted, and the sheep were washed several times a year. This lack of yolk in old and ill fed sheep is another reason why we have urged upon the farmer the necessity of keeping their sheep in good condition, and disposing of them before they become old. And those who have old and badly fed sheep should not complain because their neighbors, who have young and well fed animals, obtain a higher price for their wool, though it may be coarser than their own; for it will make softer and firmer cloth than finer wool from poorer and older sheep.

Though this yolk is essentially necessary to the production of good wool, yet no more is required than just sufficient to keep the fibres soft and pliable. Any quantity in excess of this is of no benefit to the wool, but is sometimes injurious. Some farmers feed for the purpose of exciting a large supply, thinking that by so doing they obtain what many may suppose a heavier fleece; but the quantity of wool is not increased by the increase of yolk, and the purchaser would certainly be unfit for his business if he did not make a proper allowance for all excess of grease and dirt, and it seems to be a poor speculation on the part of the farmer to feed his sheep with special reference to producing a yolk. His fleece will hold from twenty-five to thirty per cent. excess of the proper quantity required in good healthy wool, which would amount to about two pounds, and this is produced in about a fortnight, and in order to have this two pounds of yolk at the time of shearing, they will produce in the course of a year from fifty to one hundred pounds; and it is not unfrequently produced at the expense of the pulp, which is the source of the wool. When this is the case, the wool, though soft and pliable, will be weak and stunted in growth. Generally this excess of yolk is produced at the expense of mutton—the food of the sheep in place of building up the carcass and fatting it, is expended upon the yolk—and the farmer frequently finds his endeavors to feed his sheep defeated. He has fed high and is surprised that his sheep have not gained in weight. It is also produced at the expense of milk. Sheep which produce large supplies of yolk are

always deficient in milk. Corn too liberally fed to sheep will produce this effect. It contains a great amount of oil, and in place of producing fat, as in some domestic animals, it too frequently produces oil in sheep. Sheep fed largely on oil cake will be excessively yolky, particularly merinos. A large number of those remarkably heavy fleeces are produced from oil cake. Wool having its origin in the skin, will be affected by whatever affects that part. Too much dry food is apt to affect the skin of all animals unfavorably, and man is no exception,—while all succulents have a happy influence upon the coats both of the horse and cow; some of the sleekest coated horses we ever saw were indebted to a small supply of potatoes daily, for the softness and brightness of their hair.

Corn and hay are dry food, and fed exclusively and liberally to sheep are apt to affect their skin unfavorably, and consequently their wool. We have frequently noticed that sheep, which have been fed liberally with corn, show a falling off in the build of the staple during its winter growth, and is sometimes as weak as though its feed had been deficient; the bottom of the staple is often yellow and filled with a salvy substance, a sure sign of skin disease. This we have rarely noticed in wool when the sheep have been fed upon roots and hay, and scarcely ever saw an excessive supply of yolk from sheep so fed, but have known a great many cases where sheep on such feed have rapidly improved, while those fed upon corn and hay have lost weight, which could only be accounted for from the fact that corn, containing a great amount of oil, produced yolk and not fat. A little corn, with roots and hay, we have no doubt would be good feed, yet we have never seen roots fail. Sheep have many slight diseases of the skin which are rarely noticed by the flock master, but an ordinary judge of wool quickly detects them. They are frequently manifested by a discoloration of the wool—which is found to be yellow at the bottom of the staple. One reason, we think, why dry food is found to be injurious to the sheep is, it draws heavily upon the saliva in the process of mastication, and deranges the whole system by the drain.

In this connection we would urge upon the farmer the importance of looking well to his sheep in the fall. They are too often suffered to run too late in the pastures after the feed has been seriously impaired by the frost, and consequently lose condition. The growth of the wool is affected, a weak place is produced in the staple at this time, and any animal suffered to lose condition at this season of the year, cannot afterwards be restored when the weather is much colder, except at a greatly increased outlay. A little feed sometimes judiciously supplied before folding time, might be of more benefit than high feeding after they are housed. The past fall was not an exception, but we think an exemplification of this matter. We know of a great many cases when the sheep were allowed to run out till after Christmas, and pick up their own living from the sour, frozen grass; we do not object to their running out when it is dry, though it may be cold, yet they ought to have some better feed than the hard, frozen pastures afford; we believe a little good hay fed nights and mornings, at that season of the year, would have saved the lives of many sheep and produced better and heavier fleeces. TYRO.

NEW ENGLAND AGRICULTURAL SOCIETY.

General Arrangements.

The first annual exhibition of the New England Agricultural Society will be held at Hampden Park in Springfield, Massachusetts, on Tuesday, Wednesday, Thursday and Friday, September 6th, 7th, 8th and 9th, 1864. The gates will be open for the admission of the public from 8 A. M. till sundown of each day. The Marshals and Superintendents of the various Classes will meet at the President's marquee at 8 A. M., on Tuesday, to perfect arrangements for the day. The Judges and guests will report themselves at the Secretary's office on the grounds where cards of admission, etc., etc., will be furnished, vacancies will be filled by the Board of Trustees, at the President's quarters, on Tuesday, at 10 A. M., when the book of entries will be delivered. The reports of the Judges must be handed to the Secretaries before 9 o'clock, Friday morning. Notice of intention to enter life stock, and all other contributions, should be sent to either of the Secretaries on or before September 1st, that proper arrangements may be made for their accommodation. Letters may be addressed to C. L. Flint, Boston, Mass., or Henry Clark, Poultney, Vt., *Secretaries*, or J. N. Bagg, Springfield Mass., *Corresponding Secretary*. Entries may also be made on the grounds at the Secretary's office until 9 A. M., on Tuesday, September 6th, when the books must be made up for the Judges. Arrangements will be made for the sale of stock on the grounds at the close of the Exhibition. Male and female animals used for breeding must have been owned in New England at least six months previous to the Exhibition. Stalls will be provided for the stock; and hay, straw and water without charge. Grain furnished at market prices. Favorable arrangements will be effected with the various railroads in New England, for the transportation of stock and articles intended for exhibition.

Entrance Fees.

Members of the Society can enter animals or articles for premium, free of charge, and are enticled to a season ticket. All others will pay an entrance fee of one dollar, and receive four tickets of admission, with the following exceptions: Competitors for premiums on horses will pay ten per cent. on the first premium offered. Single horses under the saddle or in harness, entered for exhibition, but not in competition for premium and subject to the call of the Marshal, $3; spans or tandems, $4; four or six in hand, $6. Exhibitors of horses under the above rules will be entitled to an exhibitor's ticket, and when necessary an attendant ticket good during the Fair.

Amount of premiums offered, $10,000.

Address on Friday, by His Excellency John A. Andrew, Governor of Massachusetts.

Farmers' meetings will be held every evening. Prize animals will be specially signalized, and provision made for the sale of stock. Ample accommodations will be made on Hampden Park. Animals and articles competing for premiums must be on the grounds by 6 P. M., Monday, September 5th, the day before the exhibition. Arrangements have been made with most of the railroads to transport stock free, and run half fare excursion trains. Entries may be made in writing with

J. N. Bagg, Corresponding Secretary of the Society, at Springfield, Mass., the week prior to the exhibition. Inquiries can also be made of C. L. Flint, Boston, Mass., and Henry Clark, Poultney, Vt., Secretaries of the Society. For further particulars send for pamphlets or bulletins.

President—George B. Loring, Salem, Mass. *Vice Presidents*—Ezekiel Holmes, Winthrop, Me.; T. S. Gold, West Cornwall, Ct.; Frederick Smyth, Manchester, N. H.; Amasa Sprague, Cranston, R. I.; David Kimball, Rutland, Vt.; W. H. Prince, Northampton, Mass. *Superintendent of Grounds*—William Pynchon, Springfield, Mass. *Superintendent of Halls*—James E. Russell, Springfield, Mass. *Secretaries*—Charles L. Flint, Boston, Mass.; Henry Clark, Poultney, Vt. *Chief Marshal*—George Dwight, Springfield, Mass. *Treasurer*—Thomas Sanders, Brookfield, Vt. *Corresponding Secretary*—J. N. Bagg.

CURIOUS FEATURES OF WAR.

War presents some curious features to our view. It has drained our cities in large part of a redundant, idle, diseased and degraded class; these either soon die or are killed off. But there are examples not a few where the activities of the camp, its discipline and its experience, have made invalids robust; have imparted a higher moral tone to some, and given character and energy to others, who before were by common consent considered to be inane and worthless.

When a man of a good common education and some steadiness of character, goes to war and fairly engages in battle, he is thereafter, until his dying day, more of a man than he ever was before. No one of even common observation can have failed to notice in the faces of returned veteran regiments as they have marched along our streets, a stereotyped cast of countenance, common to all; there is an imprint of sternness on every face; of determination, and an elevation of spirit, despite of tattered garments and soiled clothing and the dust and sweat of a long march; as much as to say, I have been fighting for my country, I have imperiled my life to maintain her liberties and her unity; these are first things; my mission is God-like, to wit, to maintain liberty and the right forever! Amen.

When this war is ended, much of the scuff and scum of society will have disappeared, and nine out of ten of those who return from victorious battle-fields will make better, sterner, more manly members of society than ever before. The most of the great soldiers of history were men of simple tastes, quiet manners and of unassuming deportment. This is the tendency of war, to lop off excrescences, to consolidate the character, to inure to self-denial, to impart energy, determination and self-reliance, and to mold the whole man aright. This war will leave more men in the country than were found in it the day when Sumter was fired at and fell.

Official reports of European countries have shown more boy-children are born in war than in times of peace, and that although at the end of the wars of the First Napoleon, it was rare to find a Frenchman over five feet three, there was a recuperation in the next age, and now the average height of the men does notvary much from what it was before the Directory.

As soon as the war closes there will inevitably be a universal financial crash; in five years thereafter the country will exhibit a degree of solid prosperity and national power which can defy the world besides; an amount of cotton will be raised annually, which will astonish all civilized nations. Why?

War makes men; determined, self-reliant men; such men have a degree of self-respect which idlers never dreamed of; these characteristics will impel them to labor; to intelligent labor, to labor well directed. Five years ago, many a planter had from five hundred to five thousand acres of land, of which a few hundred only were cultivated, the remainder was held in reserve for children who were growing up with the expectation of a fortune and with the full calculation to live in ease and luxury, to end in a life of idleness, intemperance, and debauchery. Five years hence, there will be ten households instead of one, to every thousand acres; there will be ten families instead of one to be supplied with school-books, and libraries; with the ubiquitous newspaper; the weekly journal and the monthly magazine. Ten families will want a sewing-machine, a piano, a reaper and a clothes-wringer, where one does now. Ten neat cottages will spring up, where was seen but five years since a solitary planter's house, never papered, seldom plastered, and always in a more or less unfinished condition. Intelligence will not plant the teeming soil with corn and potatoes at a price of twenty dollars an acre when it can raise a hundred dollars' worth of cotton, and sometimes three hundred dollars' worth, with less labor.

That country is strongest, is most prosperous, and can best defy all outside nations which is marked off into farms of forty, fifty, or an hundred acres instead of embracing ten or twenty of these in one partially tilled plantation. So that aside from the mere question of slavery there will be benefits arising from this war which will present an encouraging front compared with the opposite phases.

The ravage of war as to human life is exaggerated in almost all minds, and is never so great as it seems to be. Many of the soldiers who sicken and die in hospitals would have sickened and died at home; while the proportion of all who die from wounds is astonishingly small, and some of these would have perished by accident had they remained at home.

It cannot be denied that war is always a curse; and can seldom, if ever, fail to be a sin; but as in the present state of human morals it will come sooner or later, to the nationalities of the earth, it is well to look at both sides calmly and dispassionately, take an intelligent view of all its phases, and endeavor to make the best of it.—*Hall's Journal of Health.*

Galls on the Backs of Horses.—It is said that an ointment made of white lead and milk will greatly soothe and heal galls on horses, occasioned, as they frequently are, by a harness that does not fit, or from some other cause. In cases of long standing, it will be necessary to repeat the application daily for a week or more, gently rubbing and stirring the blood about the injured parts. Care must also be observed not to cause fresh irritation by riding or otherwise exciting the wounds.

DON'T STINT THE COLTS.—At no time in the life of colts, do English farmers pay so much attention to these animals, or feed them better, than during their first winter; and these men contend that, if you inform them correctly how a colt is fed and cared for the first year, they will predict what kind of a horse he will make.

Just so soon as a colt is weaned, he should have a few handfuls of good oats, bruised, per day, a few pounds of cut straw, and a few pounds of hay cut. All else that he procures in the pasture will fill up the gap in his stomach (which occurs between meals,) and he will not over distend that organ, nor his intestines, simply because the wants of nature have to a great extent been satisfied, or rather provided for, by feeding the articles just alluded to. Some persons may object to feeding colts in a generous manner, on account of the expense; but if good fodder makes strong, vigorous and healthy colts, and such colts make valuable horses, then I think that such investment must pay well. Finally, the principal effect produced on the growing animal by an insufficient nutrition, is, to hinder his best development. Therefore, I say *don't stint the colts.—Dr. Dadd.*

LADIES' DEPARTMENT.

THE BRAVE AT HOME.

BY T. B. READ.

The maid who binds her warrior's sash
With smile that well her pain dissembles,
The while beneath her drooping lash
One starry tear drop hangs and trembles.
Though Heaven alone records the tear,
And fame shall never know her story,
Her heart shall shed a drop as dear
As ever dewed the field of glory.

The wife who girds her husband's sword,
'Mid little ones who weep or wonder,
And gravely speaks the cheering word,
What though her heart be rent asunder—
Doomed nightly in her dreams to hear
The bolts of war around him rattle,
Hath shed as sacred blood as e'er
Was poured upon a field of battle.

The mother who conceals her grief,
When to her breast her son she presses,
Then breathes a few brave words and brief,
Kissing the patriot brow she blesses,
With no one but her secret GOD
To know the pain that weighs upon her,
Sheds holy blood as e'er the sod
Received on Freedom's field of honor.

DOMESTIC RECEIPTS.

CANNING FRUITS.—It may be interesting to our readers to know that in these times of high prices many fruits can be preserved with little or no sugar. Currants, gooseberries, cherries, peaches and pears, require no sugar to preserve them. Raspberries and blackberries do not require more than four ounces of sugar to a pound of fruit, and strawberries but little more. We have now the different kinds nearly as fresh and good as when first gathered. Put them up the same way as if you used the usual quantity of sugar—that is, expel the cold air by heating the fruit after it is placed in jars, by setting the jars in cold water, which heat to boiling. The jars we use are Mason's self-sealing, with zinc covers, which can be screwed on before the jar is removed from the water. We have never lost a jar of fruit put up in them.—*Maine Farmer.*

FLEMINGTON GINGERBREAD.—Stir together till quite light, a quarter of a pound of butter and the same of brown sugar. Then mix in half a pint of molasses. Sift in rather less than a pint and a half of flour. Beat four eggs very light and stir them gradually into the mixture alternately with the sifted flour, a tablespoon of ginger and a teaspoon of cinnamon. Stir all well. Dissolve a level teaspoon of soda or pearlash in as much water as will melt it, then stir in at the last, and set immediately into the oven, which should be brisk, but not too hot, and bake well. Spice to your taste, as the spices frequently vary in strength.

CORN MEAL SLAPPERS.—To a quart of sweet milk stir in sufficient meal, with one handful of wheat flour, to make rather a thin batter; add a little salt and not more than half a teaspoon of soda, but you can judge better by stirring in a very little at a time till the mixture feels light. Bake like buckwheat cakes.

HOP BEER.—The editor of the *Genesee Farmer* pronounces beer made by the following rule, very superior. It is easily manufactured, and will keep six or eight months. This receipt is for fifteen gallons:

Twelve ounces of hops, six quarts of molasses, ten eggs. Put the hops in a bag and boil them fifteen minutes in three pailsful of water. Put in the molasses while hot, and pour immediately into a strong ale cask, which can be made perfectly air tight, and put in the remainder of the water cold. Let the mixture stand until cool, then add the eggs. The beer will not ferment in cold weather, unless put in quite a warm place.

SMALL TEA CAKE.—Seven ounces of flour, four and a half ounces of butter, three ounces of white sifted sugar, the peel of one lemon, the yolks of three eggs, worked well together, rolled into small rolls, and pressed on one side with a knife, and then baked.

TO CLEAN PAPER HANGINGS.—Put a clean, soft bag, or an old pillow-case, over a new broom, and gently brush the dust from the paper; then take crusts of stale bakers' bread, and wipe it down lightly, beginning at the top. If you rub it, the dirt will adhere to the paper. After thus brushing all around the upper parts of the walls with the bread, begin just above where you left off, and go round again. Do thus until you have finished the paper. The dust and crumbs will fall together. Whenever a room is cleaned it is a good way, before the paint and windows are washed, to wipe the paper with a covered broom, as above directed.

A CAT HINT.—When a cat is seen to catch a chicken, tie it round her neck, and make her wear it for two or three days. Fasten it securely, for she will make incredible efforts to get rid of it. Be firm for that time, and the cat is cured—she will never again desire to touch a bird. This is what we do with our own cats, and what we recommend to our neighbors; and when they try the experiment, they and their pets are secure from reproach and danger henceforth. Try it.

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CATTLE MARKETS FOR JULY.

The following is a summary of the reports for the four weeks ending July 20, 1864:

NUMBER AT MARKET.

	Cattle.	*Sheep.*	*Shotes.*	*Fat Hogs.*	*Veals.*
June 29	1563	4134	600	900	800
July 6	883	4293	—	600	600
" 13	1343	2995	230	1600	700
" 20	1913	5070	400	850	500
Total	5642	16,492	1230	3950	2600

The following table exhibits the number of cattle and sheep from each State for the last four weeks, and for the corresponding four weeks last year; also the total number since the first of January, of each year:

	THIS YEAR.		LAST YEAR.	
	Cattle.	*Sheep.*	*Cattle.*	*Sheep.*
Maine	10	2272	357	2611
New Hampshire	362	1613	586	1405
Vermont	1465	5952	937	4480
Massachusetts	220	1592	92	1708
Northern New York	210	2192	92	12½
Western States	3557	2446	3331	384
Canada	18	425	24	—
Total for the four weeks	5,642	16,492	5,419	11,840
Total, since Jan. 1, (29 weeks,)	39,268	102,251	39,211	78,269

PRICES.

	June 29.	*July 6.*	*July 13.*	*July 20.*
Beef, 1, 2, 3 qual	9 @13	9 @13	9 @13	9 @13
" ex. and prem	13½@13½	13½@13½	14 @15	13½@14
Sheep ℔ lb	5 @ 6½	5 @ 6½	6 @ 7	6½@ 8
Lambs, each	$4 @ 6½	4 @6½	4 @ 6½	4 @6½
Shotes, wholesale	9½@10½	— @—	9½@10½	— @10
" retail	10 @12	— @—	10 @12	11 @12
Fat hogs, live weight	11½@11½	11 @11½	— @11½	— @11
Beef hides, 10½@11½; tallow 10@12; calf skins 25@28c ℔ lb.				

REMARKS.—Although the prices of beef have fluctuated somewhat during the past month, they have not reached a higher point than that attained last month, and last market closed considerably easier than the one immediately preceding.

Sheep gradually advanced in price until the last market, when they took a large jump upwards—from $6.37 to $8 ℔ 100 lbs., on those bought in Albany.

Milch cows very dull; in consequence, in part no doubt, of the drought which has parched up the feed in all this section. Nobody talks about working oxen as everything goes for beef.

Calves have been high—from $9 to $14 ℔ head.

Hides, pelts and tallow all seem to be going up with "every thing else."

The following from our report of the market July 20, will show the state of the market at that date:

G. W. Barker sold one pair of steers to S. F. Woodbridge at 11c ℔ lb; 5 to Mr. Winter at 10½; 7 to Mr. Gage at 10c, 35 sk; and 5 of his lightest at 9c ℔ lb.

Geo. W. Morrison sold one pair of oxen laid at 2000 lbs, for $240; one pair, 1600 lbs, for $195; one pair, 1500 lbs, for $182; 4 three-year-old steers, 2100 lbs, for $210; one cow, 600 lbs, for $60; and 2 heifers, 650 lbs, for $65.

I. A. Blake sold 6 oxen to Henry Zoller, for $690, or from 11 to 12c ℔ lb; one pair to Mr. Wenthworth for $165, or 11½c ℔ lb; 8 cows for $452, or 11c, 5 two-year-olds for $135, or 9c ℔ lb; 4 heifers for $118, or 9½c ℔ lb; and a steer and a cow for $87, or 9c.

Stephen Mann sold 6 oxen and 1 cow to S. S. Learnard to kill and weigh, at 12½c; 8 small cattle to W. E. Gowing at 9¾c; and other stock, at from 9½c to 11c ℔ lb, on his estimate of their dressed weight.

O. E. Taylor sold the four best oxen that we saw at Cambridge, and rich ones they were for this season, for $575, or 13¼c ℔ lb; one pair for $215, or 11c; another for $230 or 12c; 9 two-year-olds and one cow, to dress over 400 lbs, for $40 each; 2 heifers 550 lbs, for $60, 8 other light cattle at 9c or less ℔ lb.

Lambert Hastings sold 6 very nice 3 and 4-year-old steers, laid to dress 900 lbs. for nearly 13c ℔ lb. on his estimate of their dead weight, although buyer hoped they would not cost over 12½c; his other fair cattle were sold from 12c to 10c ℔ lb, and some of the lightest at 9½ @ 10c.

A. N. Monroe sold 50 Western steers, live weight 1261 lbs. each, at 13¼c, 32 sk, as his highest, and 24 light steers, 781 lbs. each, at 9c ℔ lb, 42 sk, as his lowest sales; 31 at 11c, ½ sk; 7 at 12½c, ½ sk; 6 at 12c, 35 sk; 8 at 11c, 35 sk; 29 at 11c, ½ shrink.

John Sawyer & Co. sold 35 steers at 12, ½ sk; 25 at 13c, 34 sk; and 7 at 10½c, 37 sk.

Mr. French sold what he considered a fine lot of New Hampshire lambs, for $5.25 ℔ head; Lace & Tyler sold sheep and lambs at $5.40 ℔ head, without weighing; J. P. Fowler sold 265 sheep and lambs at $5.25 ℔ head; John Larmon sold his lambs at $5 ℔ head and his sheep at 7½c ℔ lb; one lot of Canada lambs brought $6.00. N. E. Rice sold lambs at $5 and sheep at $6.60 ℔ head; Berry Long sold 192 sheep, 80 lbs. each, at 7¼c ℔ lb; M. T. Shackett sold 150 sheep, 90 lbs. each, to J. W. Hollis, and 155 of 80 lbs, to Jerry Pratt, at 7c ℔ lb, and 62 lambs, at $5.25 ℔ head; one carload of Albany lambs we understand would cost a fraction over $6. One lot of old sheep were sold at Cambridge for 6¼c; Lambert Hastings sold 400 lambs with a very few sheep at $5 to $6 ℔ head.